

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

**This canine's DNA showed the following genotype(s):**

| Breed Sense | Disease                                                     | Gene  | Genotype    | Interpretation                                                            |
|-------------|-------------------------------------------------------------|-------|-------------|---------------------------------------------------------------------------|
| ✓           | Hereditary Ataxia (Australian Shepherd Type)                | RAB24 | WT/WT       | NORMAL (N/N) - [NO VARIANT DETECTED]                                      |
| ✓           | Hereditary Cataract (Dominant)                              |       | WT/WT       | NORMAL (N/N) - [NO VARIANT DETECTED]                                      |
| ✓           | Chondrodysplasia (CDPA) & Chondrodystrophy (CDDY and IVDD)  |       | WT/WT WT/WT | NORMAL (N/N) FOR BOTH THE CFA18 (CDPA - SHORT LIMB) & CFA12 (CDDY - IVDD) |
| ✓           | Progressive Rod Cone Degeneration (prcd) - PRA              | PRCD  | WT/WT       | NORMAL (N/N) - [NO VARIANT DETECTED]                                      |
| ✓           | Neuronal Ceroid Lipofuscinosis 6 (Australian Shepherd Type) | CLN6  | WT/WT       | NORMAL (N/N) - [NO VARIANT DETECTED]                                      |
| ✓           | Neuronal Ceroid Lipofuscinosis 6                            | CLN6  | WT/WT       | NORMAL (N/N) - [NO VARIANT DETECTED]                                      |

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| Breed Sense | Disease                                                | Gene     | Genotype | Interpretation                                                                                |
|-------------|--------------------------------------------------------|----------|----------|-----------------------------------------------------------------------------------------------|
| ✓           | Collie Eye Anomaly/Choroidal Hypoplasia                | NHEJ1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
| ✓           | Ivermectin Sensitivity MDR1 (Multi Drug Resistance)    | MDR1     |          | POSITIVE HETEROZYGOUS (P/N) - [ONE COPY OF THE DOMINANT VARIANT DETECTED]                     |
| ✓           | Multifocal Retinopathy CMR1 (Mastiff/Bull Breeds Type) | BEST1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
| ✓           | Juvenile Dermatomyositis [MAP3K7CL RISK ALLELE]        | MAP3K7CL |          | bb - NO MAP3K7CL VARIANT DETECTED [THIS IS ONE OF THE 3 LOCI ASSOCIATED WITH DERMATOMYOSITIS] |
| ✓           | Hyperuricosuria                                        | SLC2A9   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
| ✓           | Cranio-mandibular Osteopathy (Terrier Type)            | SLC37A2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |

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| Breed Sense | Disease                                                       | Gene  | Genotype | Interpretation                                         |
|-------------|---------------------------------------------------------------|-------|----------|--------------------------------------------------------|
| ✓           | von Willebrand's Disease Type I                               | VWF   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                   |
| ✓           | Exercise Induced Collapse (Retriever Type)                    | DNM1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                   |
| ✓           | Achromatopsia (Shepherd/Arctic Breed Type)                    | CNGB3 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                   |
| ✓           | Factor VII Deficiency                                         | F7    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                   |
| ✓           | Adult Onset Deafness Border Collie (Linkage Association Test) | USP31 |          | NORMAL (N/N) FOR THE EAOD RISK VARIANT [RESEARCH ONLY] |
| ✓           | Hereditary Cataract                                           | HSF4  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                   |

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| Breed Sense | Disease                                                                                     | Gene  | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------------------------------------------|-------|----------|--------------------------------------|
| ✓           | Degenerative Myelopathy                                                                     | SOD1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis 10 (American Bulldog Type)                                   | CTSD  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis 5 (Border Collie Type)                                       | CLN5  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis 1 (Dachshund Type)                                           | PPT1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis 4A - Cerebellar Ataxia (American Staffordshire Terrier Type) | NCL-A | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neurodegenerative Vacuolar Storage Disease (Lagotto Romagnolo Type)                         | ATG4D | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Breed Sense | Disease                                                     | Gene    | Genotype | Interpretation                       |
|-------------|-------------------------------------------------------------|---------|----------|--------------------------------------|
|             | Neuronal Ceroid Lipofuscinosis 8 (English Setter Type)      | CLN8    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis A (Tibetan Terrier Type)     | ATP13A2 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuroaxonal Dystrophy (Spanish Water Dog Type)              | TECPR2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis MFSD8 (Chinese Crested Type) | MFSD8   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis NCL (Cane Corso Type)        | PPT1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Nonsyndromic Hearing Loss                                   | LOXHD1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Breed Sense | Disease                                                    | Gene     | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------|----------|----------|--------------------------------------|
|             | Neuronal Ceroid Lipofuscinosis NCL (Golden Retriever Type) | CLN5     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Periodic Fever Syndrome (Shar Pei Fever)                   | MTBP     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Polyneuropathy and Neuronal Vacuolation (JLPP)             | RAB3GAP1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Polyneuropathy (NDRG1) (Greyhound)                         | NDRG1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Polyneuropathy (NDRG1) (Alaskan Malamute)                  | NDRG1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Polycystic Kidney Disease (Bull Terrier Type)              | PKD1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Breed Sense | Disease                                                               | Gene         | Genotype | Interpretation                       |
|-------------|-----------------------------------------------------------------------|--------------|----------|--------------------------------------|
|             | Pituitary Dwarfism (Karelian Bear Dog Type)                           | POU1F1       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Phosphofructokinase Deficiency (Spaniel Type)                         | PFKM         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Phosphofructokinase Deficiency (German Spaniel)                       | PFKM         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Paroxysmal Exercise-Induced Dyskinesia (PED) (Shetland Sheepdog Type) | PCK2_413_G A | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuronal Ceroid Lipofuscinosis NCL (Saluki Type)                      | CLN8         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Osteogenesis Imperfecta SERPINH1 (Dachshund Type)                     | SERPINH1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------|----------------------------------------------------|---------|----------|--------------------------------------|
|             | Osteogenesis Imperfecta (Golden Retriever Type)    | COL1A1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Osteogenesis Imperfecta (Chow Chow)                | COL1A2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Osteogenesis Imperfecta (Beagle Type)              | COL1A2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Osteochondrodysplasia (Min Poodle Type)            | SLC13A1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Oculo-Skeletal Dysplasia (Labrador Retriever Type) | COL9A3  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuroaxonal Dystrophy (Papillon Type)              | PLA2G6  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Breed Sense | Disease                                                 | Gene  | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------|-------|----------|--------------------------------------|
|             | Neuronal Ceroid Lipofuscinosis NCL 12 (Cattle Dog Type) | ATP   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuroaxonal Dystrophy (Rottweiler Type)                 | VSP11 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Achromatopsia (German Shorthaired Pointer Type)         | CNGB3 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neuroaxonal Dystrophy (Giant Schnauzer Type)            | MFN2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mucopolysaccharidosis VI (Miniature Schnauzer Type)     | ARSB  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Myelin and Lysosomal Storage Disease (Weimaraner Type)  |       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------|-----------------------------------------------------------------------------|----------|----------|--------------------------------------|
|             | Musladin-Lueke Syndrome (Beagle Type)                                       | ADAMTSL2 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Muscular Dystrophy (Landseer Type)                                          | COL6A1   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Muscular Dystrophy (Golden Retriever Type)                                  | DMD      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Muscle Hypertrophy and Gait (French Bulldog Type)                           |          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mullerian Duct Syndrome (Miniature Schnauzer Type)                          | AMHR2    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mucopolysaccharidosis VII - Type II (German Shepherd/Belgian Shepherd Type) | GUSB     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------|---------------------------------------------------------|-------|----------|--------------------------------------|
|             | Mucopolysaccharidosis VI (Great Dane Type)              | ARSB  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Myotonia Congenita (American Bulldog Type)              | CLCN1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mucopolysaccharidosis Type VII (Brazilian Terrier Type) | GUSB  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mucopolysaccharidosis Type I (Plott Hound Type)         | IDUA  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mucopolysaccharidosis IIIB (Schipperke Type)            | NAGLU | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Mucopolysaccharidosis (Huntaway Type)                   | SGSH  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Breed Sense | Disease                                                        | Gene  | Genotype | Interpretation                       |
|-------------|----------------------------------------------------------------|-------|----------|--------------------------------------|
|             | Microphthalmia, Anophthalmia & Coloboma (Wheaten Terrier Type) | RBP4  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | May-Hegglin Anomaly (Pug Type)                                 | MYH9  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Malignant Hyperthermia                                         | RYR1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Myostatin Deficiency                                           | MSTN  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Myotonia Congenita (Labrador Retriever Type)                   | CLCN1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Neonatal Encephalopathy (Poodle Type)                          | ATF2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Breed Sense | Disease                                                  | Gene     | Genotype | Interpretation                                                                                |
|-------------|----------------------------------------------------------|----------|----------|-----------------------------------------------------------------------------------------------|
|             | Myxomatous Mitral Valve Disease 5 [NEBL498 Risk Variant] | NEBL     |          | NEGATIVE FOR NEBL5_498 RISK VARIANT - NO PUBLISHED ASSOCIATION TO NEBL3_724 CANDIDATE VARIANT |
|             | Neonatal Cerebellar Cortical Degeneration (Beagle Type)  | SPTBN2   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
|             | Neonatal Ataxia (Coton du Tulear Type)                   | GRM1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
|             | Necrotising Meningoencephalitis (NME)                    | HLA-DRB1 |          | N/N - NO COPY OF THE PDE/NME ASSOCIATED RISK MARKER DETECTED                                  |
|             | Polyneuropathy GJA9 (Leonberger/St Bernard Type)         | GJA9     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
|             | Narcolepsy (Labrador)                                    | HCRT2    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |

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|-------------|----------------------------------------------------------|-------|----------|-----------------------------------------------------------------------------------------------|
|             | Narcolepsy (Dobermann Type)                              | HCRT2 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
|             | Narcolepsy (Dachshund Type)                              | HCRT2 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |
|             | Myxomatous Mitral Valve Disease 4 [NEBL890 Risk Variant] | NEBL  |          | NEGATIVE FOR NEBL4_890 RISK VARIANT - NO PUBLISHED ASSOCIATION TO NEBL3_724 CANDIDATE VARIANT |
|             | Myotonia Congenita (Miniature Schnauzer Type)            | CLCN1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                          |

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|-------------|----------------------------------------------------------|----------|----------|---------------------------------------------------------------------------------|
|             | Myxomatous Mitral Valve Disease 1 [NEBL535 Risk Variant] | NEBL     |          | HETEROZYGOUS FOR NEBL1_535 RISK VARIANT - LINKED TO NEBL3_724 CANDIDATE VARIANT |
|             | Myotubular Myopathy X-Linked (Rottweiler Type)           | MTM1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                            |
|             | Myotubular Myopathy X-Linked (Labrador Retriever Type)   | MTM1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                            |
|             | Myotubular Myopathy 1 (Boykin Spaniel Type)              | MTM1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                            |
|             | Myotonia Hereditaria (Cattle Dog Type)                   | CLCN1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                            |
|             | Polyneuropathy ARHGEF10 (Leonberger/Saint Bernard Type)  | ARHGEF10 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                            |

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|-------------|-------------------------------------------------------------------|----------------|----------|--------------------------------------|
|             | Primary Ciliary Dyskinesia (Old English Sheepdog Type)            | CCDC39         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Polyneuropathy with Ocular Abnormalities and Neuronal Vacuolation | RAB3GAP1       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Spinocerebellar Ataxia (CAPN1)                                    | CAPN1          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Stickler Syndrome Type II (Old English Sheepdog Type)             | COL11A1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Startle Disease (Spanish Greyhound Type)                          | SLC6A5_546_Del | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Stargardt Disease (Retinal Degeneration)                          | ABCA4          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                             | Gene   | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------------------|--------|----------|--------------------------------------|
|             | Spongy Degeneration with Cerebellar Ataxia (SDCA2) Belgian Shepherd | SDCA2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Spongy Degeneration with Cerebellar Ataxia (KCNJ10)                 | KCNJ10 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Spondylocostal Dysostosis (Miniature Schnauzer Type)                | HES7   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Spinocerebellar Ataxia (Jack Russell Type)                          | KCNJ10 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Spinocerebellar Ataxia (Alpine Dachsbracke Type)                    | SCN8A  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Thrombasthenic Thrombopathia (Otterhound Type)                      | ITGA2B | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                                | Gene               | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------------------|--------------------|----------|--------------------------------------|
|             | Spinocerebellar Ataxia                                                 | XCNJ10             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Spinal Dysraphism (Weimaraner Type)                                    | NKX2-8             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Skeletal Dysplasia 2 (Mild Disproportionate Dwarfism)                  | COL11A2            | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Severe Combined Immunodeficiency Disease, X-Linked (Corgi Type)        | IL2RG_459_Ins      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Severe Combined Immunodeficiency Disease, X-Linked (Basset Hound Type) | IL2RG_657_Deletion | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Severe Combined Immunodeficiency Disease (Terrier Type)                | PRKDC_588_CAG      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                 | Gene                                            | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------|-------------------------------------------------|----------|--------------------------------------|
|             | Severe Combined Immunodeficiency (Frisian Water Dog)    | DNA-dependent protein kinase, catalytic subunit | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Sensory Neuropathy (Border Collie Type)                 |                                                 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Succinic Semialdehyde Dehydrogenase Deficiency (SSADHD) | ALDH5A1                                         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Thrombopathia (Basset Hound Type)                       | RASGRP1                                         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Sarcoglycan Deficient Muscular Dystrophy (SDMD)         | SGCA                                            | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | von Willebrand's Disease Type II                        | vWF                                             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                    | Gene  | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------|-------|----------|--------------------------------------|
|             | Xanthine Urolithiasis (Manchester Terrier Type)            | MOCOS | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Xanthine Urolithiasis (Dachshund Type)                     |       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Xanthine Urolithiasis (Cavalier King Charles Spaniel Type) |       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | X-Linked PRA2 (Miniature Schnauzer Type)                   | XLPR  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | X-Linked PRA (Samoyed/Husky Type)                          | RPGR  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | von Willebrand's Disease Type III                          | VWF   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
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| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                      | Gene    | Genotype | Interpretation                       |
|-------------|--------------------------------------------------------------|---------|----------|--------------------------------------|
|             | von Willebrand's Disease Type II (German Wirehaired Pointer) | VWF     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | von Willebrand Disease III (Shetland Sheepdog Type)          | VWF     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Thrombopathia (Newfoundland Type)                            | RASGRP1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | von Willebrand Disease III (Kooikerhondje Type)              | VWF     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Van den Ende-Gupta Syndrome (Wire Fox Terrier Type)          | SCARF2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ullrich-Like Muscular Dystrophy, Variant 2                   | COL6A2  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                          | Gene         | Genotype | Interpretation                       |
|-------------|--------------------------------------------------|--------------|----------|--------------------------------------|
|             | Ullrich-Like Muscular Dystrophy, Variant 1       |              | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Type B PRA 2 [HIVEP3] (Miniature Schnauzer Type) | HIVEP3       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Type A PRA 1 (Miniature Schnauzer Type)          | PDC          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Trapped Neutrophil Syndrome (Border Collie Type) | VPS13B       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Thrombopathia (Platelet Dysfunction)             | RASGRP1      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Scott Syndrome (German Shepherd Type)            | TMEM16F gene | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------------------|---------------------|--------------------------|--------------|
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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                                  | Gene   | Genotype | Interpretation                       |
|-------------|--------------------------------------------------------------------------|--------|----------|--------------------------------------|
|             | Sanfilippo Syndrome Type A / Mucopolysaccharidosis IIIA (Dachshund Type) | SGSH   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Post Operative Haemorrhage / Platelet Disorder (Mountain Dog Type)       | P2RY12 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Epidermal Nevi                                               |        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy (Puli Type)                                  | BBS4   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy (Giant Schnauzer Type)                       | NECAP1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy - rcd3 (Corgi/Crested Type)                  | PDE6A  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                               | Gene              | Genotype | Interpretation                       |
|-------------|-----------------------------------------------------------------------|-------------------|----------|--------------------------------------|
|             | Progressive Retinal Atrophy - rcd1 (Irish Setter)                     | PDE6B             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy - Late Onset (Basenji Type)               | SAG               | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy - crd2PRA                                 | IQCB1             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy - crd1PRA                                 | PDE6B             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Primary Open Angle Glaucoma and Primary Lens Luxation (Shar Pei Type) | ADAMTS17_38 7_Del | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy 3                                         | FAM161A           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                     | Gene     | Genotype | Interpretation                       |
|-------------|-------------------------------------------------------------|----------|----------|--------------------------------------|
|             | Primary Open Angle Glaucoma (Beagle Type)                   | ADAMTS10 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Primary Open Angle Glaucoma (Basset Fauve de Bretagne Type) | ADAMTS17 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Primary Lens Luxation                                       | ADAMTS17 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Primary Hyperoxaluria                                       | AGXT     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Primary Glaucoma                                            | ADAMTS10 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Macrothrombocytopenia (Cairn/Norfolk Terrier Type)          | TUBB1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                  | Gene                  | Genotype | Interpretation                       |
|-------------|----------------------------------------------------------|-----------------------|----------|--------------------------------------|
|             | Primary Ciliary Dyskenesia (Malamute Type)               | NME5 on chromosome 11 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Prekallikrein Deficiency (Shih Tzu Type)                 | KLKB1                 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy (Shetland Sheepdog)          | CNGA1                 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy Dominant (Mastiff Type)      | RHO                   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Retinopathy (Vallhund Type)                              | MERTK                 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Raine Syndrome Dental Hypomineralisation (Border Collie) | FAM20C                | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                      | Gene                                                                                                                                                                                                                                                                                                                                                                                                          | Genotype | Interpretation                       |
|-------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------|
|             | Retinitis Pigmentosa (Lapponian Herder Type) | Retinitis Pigmentosa (RP) is a group of genetic disorders typically characterized by the progressive loss of photoreceptor cells in the retina, leading to diminished vision and, in many cases, eventual blindness. The "Lapponian Herder Type" refers to a particular form of RP that affects the Lapponian Herder, a breed of dog.<br>### Overview of Lapponian Herder and RP<br>The Lapponian Herder is a | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------------------|---------------------|--------------------------|--------------|
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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                          | Gene                  | Genotype | Interpretation                       |
|-------------|--------------------------------------------------|-----------------------|----------|--------------------------------------|
|             | Recurrent Inflammatory Pulmonary (Collie Type)   | AKNA on chromosome 11 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Pyruvate Kinase Deficiency (Terrier Type)        | PKLR                  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy PRA1 (Papillon Type) | CNGB1                 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Pyruvate Kinase Deficiency (Pug)                 | PKLR                  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Pyruvate Kinase Deficiency (Labrador Type)       | PKLR                  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Pyruvate Kinase Deficiency (Beagle Type)         | PKLR_826_Del          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

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| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                              | Gene          | Genotype | Interpretation                       |
|-------------|----------------------------------------------------------------------|---------------|----------|--------------------------------------|
|             | Pyruvate Kinase Deficiency (Basenji Type)                            | PKLR          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Pyruvate Dehydrogenase Phosphatase Deficiency (Clumber Spaniel Type) | PDP1          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy, PRA4 (Lhasa Apso Type)                  | IMPG2         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy, Early Onset (Spanish Water Dog Type)    | PDE6B_235_De1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Progressive Retinal Atrophy RCD4                                     | C2orf71       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Macular Corneal Dystrophy (Labrador Type)                            | CHST6         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                              | Gene          | Genotype | Interpretation                       |
|-------------|------------------------------------------------------|---------------|----------|--------------------------------------|
|             | L2-Hydroxyglutaric Aciduria (Yorkshire Terrier Type) | L2HGDH_190_CT | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Lundehund Syndrome                                   | LEPREL1       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Stationary Night Blindness                | RPE65         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cystinuria (SLC3A1) Labrador Retriever Type          | SLC3A1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cystinuria (SLC3A1) (Australian Cattle Dog Type)     | SLC3A1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cystinuria (Newfoundland Type)                       | SLC3A1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                  | Gene             | Genotype | Interpretation                                                                       |
|-------------|----------------------------------------------------------|------------------|----------|--------------------------------------------------------------------------------------|
|             | Cystinuria (Miniature Pinscher Type)                     | SLC7A9           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                 |
|             | Curly Coat Dry Eye Syndrome (Cavalier Type)              | FAM83H           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                 |
|             | Copper Toxicosis (Bedlington Terrier Type)               | COMMD1           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                 |
|             | Congenital Stationary Night Blindness (Beagle Type)      | LRIT3_740_De I   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                 |
|             | Congenital Myasthenic Syndrome (Old Danish Pointer Type) | CHAT             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                 |
|             | Cystinuria Type 3 [Bulldog Risk Factor Variant 2&3]      | SLC3A and SLC7A9 |          | NORMAL (N/N) FOR BOTH THE HIGH RISK VARIANT 2 [SLC3A1] & LOW RISK VARIANT 3 [SLC7A9] |

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| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                    | Gene          | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------|---------------|----------|--------------------------------------|
|             | Congenital Myasthenic Syndrome (Labrador Retriever Type)   | COLQ          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Myasthenic Syndrome (Jack Russell Terrier Type) | CHRNE         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Myasthenic Syndrome (Golden Retriever Type)     | COLQ_716_G A  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Muscular Dystrophy (Italian Greyhound Type)     | LAMA2_271_A G | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Methemoglobinemia (Poodle and Pomeranian Type)  | CYB5R3        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Macrothrombocytopenia                           | TUBB1         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                                               | Gene           | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------------------------------------|----------------|----------|--------------------------------------|
|             | Congenital Hypothyroidism with Goiter (Toy Fox Terrier Type)                          | TPO            | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cystinuria Type 3 [Bulldog Risk Factor Variant 1]                                     | SLC3A1_989_AG  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dandy Walker Like Malformation (Eurasier Breed Type)                                  | VLDLR_144_DeI  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Eye Malformation (Golden Retriever)                                        | SIX6           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dyserythropoietic Anemia and Myopathy Syndrome (DAMS) (English Springer Spaniel Type) | EHBP1L1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Early-Onset Epilepsy, Mitochondrial Dysfunction and Neurodegeneration                 | PITRM1_272_DeI | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                               | Gene           | Genotype | Interpretation                       |
|-------------|-----------------------------------------------------------------------|----------------|----------|--------------------------------------|
|             | Early-Onset Progressive Retinal Atrophy                               | CCDC66_929_Ins | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Early Onset Adult Deafness (Rhodesian Ridgeback)                      | EPS8L2         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dystrophic Epidermolysis Bullosa (Golden Retriever Type)              | COL7A1         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dystrophic Epidermolysis Bullosa (Asian Shepherd Type)                | COL7A1         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dysphagia (French Bulldog)                                            |                | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dyserythropoietic Anemia and Polymyopathy (DAMS) (Labrador Retriever) | EHBP1L1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                   | Gene           | Genotype | Interpretation                       |
|-------------|-----------------------------------------------------------|----------------|----------|--------------------------------------|
|             | Duchenne Muscular Dystrophy (Pembroke Welsh Corgi Type)   | DMD_607_Ins    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Darier Disease and Associated Infundibular Cyst Formation | ATP2A2_020_Ins | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Duchenne Muscular Dystrophy (Border Collie Type)          | DMD_465_Del    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Disproportionate Dwarfism (Vizsla Type)                   | PCYT1A         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Dihydroxyadenine Urolithiasis Type IA                     | APRT           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Diffuse Cystic Renal Dysplasia and Hepatic Fibrosis       | INPP5E_064_GA  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

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|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                                       | Gene          | Genotype | Interpretation                       |
|-------------|-------------------------------------------------------------------------------|---------------|----------|--------------------------------------|
|             | Delayed Postoperative Haemorrhage (Scottish Deerhound Type)                   | SERPINF2      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Degenerative Myelopathy Early-Onset Risk Modifier (Pembroke Welsh Corgi Type) | SP110_453_CT  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Degenerative Myelopathy (Bernese Mountain Dog Type)                           | SOD1_c52      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Hypothyroidism with Goiter (Tenterfield Terrier Type)              | TPO           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Dyshormonogenic Hypothyroidism with Goiter (Shih Tzu)              | SLC5A5_672_TC | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ectodermal Dysplasia, X-Linked (Dachshund Type)                               | EDA_504_Del   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                          | Gene              | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------------|-------------------|----------|--------------------------------------|
|             | Amelogenesis Imperfecta (Parson Russell Terrier Type), Variant 1 | ENAM_719_CT       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Canine Leukocyte Adhesion Deficiency Type I (Irish Setter Type)  | ITGB2             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Brain Hypomyelination (Weimaraner Type)                          | NKX2-8            | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Bilateral Deafness MYO7A Gene (Doberman Type)                    | MYO7A             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Beta Mannisidosis (German Shepherd Type)                         |                   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Bernard-Soulier Syndrome (Cocker Spaniel Type)                   | GP9 chromosome 20 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                           | Gene          | Genotype | Interpretation                       |
|-------------|-------------------------------------------------------------------|---------------|----------|--------------------------------------|
|             | Autosomal Hereditary Recessive Nephropathy (Familial Nephropathy) | COL4A4        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ataxia (Norwegian Buhund Type)                                    | KCNIP4_674_TC | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Amelogenesis Imperfecta (Italian Greyhound Type)                  | ENAM          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Canine Multifocal Retinopathy 3                                   | BEST1         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Amelogenesis Imperfecta (Akita Type)                              | ACPT          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Alport Syndrome/ Hereditary Nephritis (Samoyed Type)              | COL4A5        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                              | Gene        | Genotype | Interpretation                       |
|-------------|----------------------------------------------------------------------|-------------|----------|--------------------------------------|
|             | Airway Distress Syndrome (ADAMTS3) - Risk Marker                     | ADAMTS3     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Afibrinogenemia, Variant 1                                           | FGA_736_Del | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Adult Paroxysmal Dyskinesia                                          | PIGN_240_CT | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Acute Respiratory Distress Syndrome (Dalmatian Type)                 |             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Acral Mutilation Syndrome (SPANIEL & POINTER TYPE)                   | GDNF        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Canine Leukocyte Adhesion Deficiency Type III (German Shepherd Type) | FERMT3      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                                               | Gene         | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------------------------------------|--------------|----------|--------------------------------------|
|             | Canine Multifocal Retinopathy CMR1 (Coton de Tulear Type)                             | BEST1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Congenital Deafness (Australian Stumpy Tail Cattle Dog Type) (LINKAGE CANDIDATE GENE) | KLF7_685_TC  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Chondrodysplasia ITGA10 (Elkhound Type)                                               | ITGA10       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cone-Rod Dystrophy I - PRA (crd -4/cord I)                                            | RPGRIP1      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cone Degeneration (German Shepherd Dog Type)                                          | CNGA3_861_GA | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Complement 3 Deficiency                                                               | C3_746_Del   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                          | Gene          | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------------|---------------|----------|--------------------------------------|
|             | Cobalamin Malabsorption: Cubilin Deficiency (Border Collie Type) | CUBN          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cobalamin Malabsorption (Beagle Type)                            | CUBN          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cleft Lip Palate (Nova Scotia Duck Tolling Retriever Type)       | ADAMTS20      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Chronic Respiratory Tract Infection                              |               | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Charcot Marie Tooth Disease (Type 4B2)                           | MTMR13_425_CA | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Canine Multifocal Retinopathy CMR3 (Lapphund Type)               | BEST1         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                      | Gene  | Genotype | Interpretation                       |
|-------------|--------------------------------------------------------------|-------|----------|--------------------------------------|
|             | Cerebellar Cortical Degeneration (Hungarian Vizsla Type)     | SNX14 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cerebellar Ataxia (Finnish Hound Type)                       | SEL1L | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Centronuclear Myopathy /Inherited Myopathy (Great Dane Type) | BIN1  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Centronuclear Myopathy (Labrador Retriever Type)             | PTPLA | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Catalase Deficiency (Beagle Type)                            | CAT   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Cardiomyopathy and Juvenile Mortality (Belgian Shepherd)     | YARS2 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                       | Gene       | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------------|------------|----------|--------------------------------------|
|             | Canine Multiple System Degeneration (Kerry Blue Terrier Type) | SERAC1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Canine Multiple System Degeneration (Chinese Crested)         | SERAC1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ectodermal Dysplasia (Chesapeake Bay Retriever Type)          | PKP1       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ectodermal Dysplasia, X-Linked (Shepherd Type)                | EDA_433_GA | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ligneous Membranitis                                          | PLG        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Nasal Parakeratosis (Greyhound Type)               | HNPk       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------------------|---------------------|--------------------------|--------------|
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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                           | Gene   | Genotype | Interpretation                       |
|-------------|---------------------------------------------------|--------|----------|--------------------------------------|
|             | Ichthyosis (Golden Retriever Type 2)              |        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ichthyosis (German Shepherd Type)                 |        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ichthyosis (American Bulldog)                     | NIPAL4 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hypophosphatasia                                  | ALPL   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Nephropathy (English Springer Spaniel) |        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Necrotising Myelopathy (Kooiker Type)  |        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                           | Gene    | Genotype | Interpretation                       |
|-------------|-------------------------------------------------------------------|---------|----------|--------------------------------------|
|             | Hereditary Nasal Parakeratosis/Dry Nose (Labrador Retriever Type) | SUV39H2 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Methemoglobinemia, Variant 3                           | CYB5R3  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ichthyosis (Jack Russell Terrier Type)                            | TGM1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Methemoglobinemia, Variant 1                           | CYB5R3  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Footpad Hyperkeratosis (Dogue de Bordeaux Type)        | KRT16   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Footpad Hyperkeratosis                                 | FAM83G  | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                         | Gene    | Genotype | Interpretation                       |
|-------------|-------------------------------------------------|---------|----------|--------------------------------------|
|             | Hereditary Deafness PTPRQ Gene (Dobermann Type) | PTPRQ   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hereditary Ataxia (Autophagy)                   | RAB24   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Hemophilia A (German Shepherd Dog, Type 1)      | F8      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Haemophilia B / Factor IX (Cairn Terrier Type)  | FIX     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ichthyosis (Great Dane)                         | SLC27A4 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ichthyosis (Norfolk Terrier)                    | KRT10   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                          | Gene    | Genotype | Interpretation                       |
|-------------|--------------------------------------------------|---------|----------|--------------------------------------|
|             | Haemophilia B (Lhasa Apso Type)                  | F9      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | L2- Hydroxyglutaric Aciduria                     | L2HGA   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Leukoencephalomyelopathy (LEMP)                  | NAPEPLD | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Lethal Acrodermatitis MKLN1 (Bull Terrier Type)  | MKLN1   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Leigh-Like Subacute Necrotising Encephalopathy   | SLC19A3 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Laryngeal Paralysis (St Bernard/Leonberger Type) | CNTNAP1 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

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|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

**This canine's DNA showed the following genotype(s):**

| Breed Sense | Disease                                                                   | Gene                                 | Genotype | Interpretation                       |
|-------------|---------------------------------------------------------------------------|--------------------------------------|----------|--------------------------------------|
|             | Laryngeal Paralysis (Bull Terrier Type)                                   | RAPGEF6                              | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Achromatopsia (Labrador Type)                                             | CNGA3                                | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | L2-Hydroxyglutaric Aciduria (Staffordshire Bull Terrier Type) - Variant 2 | L2HGDH_472 _GA                       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Juvenile Paroxysmal Dyskinesia                                            | PIGN                                 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ichthyosis A (Golden Retriever)                                           | PNPLA1                               | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Juvenile Epilepsy (Benign Familial) - Lagotto Romagnolo Type              | LGI family, member 2 on chromosome 3 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                               | Gene     | Genotype | Interpretation                                                                            |
|-------------|-------------------------------------------------------|----------|----------|-------------------------------------------------------------------------------------------|
|             | Juvenile Dermatomyositis [PAN2 RISK ALLELE]           | PAN2     |          | aa - NO PAN2 VARIANT DETECTED [THIS IS ONE OF THE 3 LOCI ASSOCIATED WITH DERMATOMYOSITIS] |
|             | Juvenile Cataracts (Wirehaired Pointing Griffon Type) | FYCO1    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                      |
|             | Junctional Epidermolysis Bullosa                      | LAMB3    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                      |
|             | Intestinal Cobalamin Malabsorption (Komondor Type)    | CUBN     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                      |
|             | Inflammatory Myopathy                                 | SLC35A12 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                      |
|             | Increased Susceptibility to M. Avium Infection        | CARD9    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED]                                                      |

## Canine Genetic Health Certificate™

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                           | Gene           | Genotype | Interpretation                       |
|-------------|---------------------------------------------------|----------------|----------|--------------------------------------|
|             | Haemophilia B (Rhodesian Ridgeback Type)          | F9_868_GA      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Haemophilia A/Factor VIII Deficiency (Boxer Type) | F8             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ehlers-Danlos Syndrome (Dobermann Type)           | ADAMTS2_690_CT | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Exercise Induced Metabolic Myopathy               | ACADVL         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Fucosidosis (English Springer Spaniel Type)       | FUCA1          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Footpad Hyperkeratosis (Rottweiler)               | DSG1           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                          | Gene           | Genotype | Interpretation                       |
|-------------|--------------------------------------------------|----------------|----------|--------------------------------------|
|             | Fatal Neonatal Interstitial Lung Disease (LAMP)  | LAMP3_728_CT   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Fanconi Syndrome                                 | FAN1           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Factor XI Deficiency                             | F11            | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Factor IX Deficiency                             | F9             | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Exfoliative Cutaneous Lupus Erythematosus (ECLE) | UNC93B1_804_CA | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Episodic Falling Syndrome (Cavalier Type)        | BCAN           | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                    | Gene      | Genotype | Interpretation                       |
|-------------|------------------------------------------------------------|-----------|----------|--------------------------------------|
|             | Gangliosidosis (Portuguese Water Dog Type)                 | GLB1      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Encephalopathy (Alaskan Husky Type)                        | LOC486151 | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Enamel Hypoplasia - Amelogenesis Imperfecta (Samoyed Type) | SLC24A4   | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Elliptocytosis B-spectrin (Labrador Retriever/Poodle Type) | SPTB      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ehlers-Danlos Syndrome (Poodle Type), Variant 2            | TNXB      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ehlers-Danlos Syndrome (Poodle Type), Variant 1            | TNXB      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                     | Gene       | Genotype | Interpretation                       |
|-------------|-------------------------------------------------------------|------------|----------|--------------------------------------|
|             | Ehlers-Danlos Syndrome (Labrador Type)                      | COL5A1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Ehlers-Danlos Syndrome (Labrador Retriever Type), Variant 2 | COL5A1     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Gall Bladder Mucocele Formation (Shetland Sheepdog Type)    | ABCB4      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Gangliosidosis GM1 GLB1 (Shiba Inu Type)                    | GLB1       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Haemophilia A / Factor VIII (German Shepherd Type)          | FVIII (F8) | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Glomerulopathy (PLN) KIRREL2                                | KIRREL2    | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                   | Gene       | Genotype | Interpretation                       |
|-------------|-----------------------------------------------------------|------------|----------|--------------------------------------|
|             | Haemophilia A (Rhodesian Ridgeback Type)                  | F8_876_Ins | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Grey Collie Syndrome (Cyclic Hematopoiesis) AP3           | AP3B1      | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Goniodysgenesis and Glaucoma (Border Collie)              | OLFML3     | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | GM1 Gangliosidosis (Alaskan Husky Type)                   | GLB1       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Glycogen Storage Disease IIIA (Curly Coat Retriever Type) | GSD        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Glycogen Storage Disease IA (Maltese Type)                | G6PC       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                          | Gene         | Genotype | Interpretation                       |
|-------------|--------------------------------------------------|--------------|----------|--------------------------------------|
|             | Glomerulopathy (PLN) NPHS1                       | NPHS1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Globoid Cell Leukodystrophy/Krabbe's Disease     | GALC         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Gangliosidosis GM2 (Japanese Chin Type)          | HEXA         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Globoid Cell Leukodystrophy (Irish Setter Type)  | GALC_611_Ins | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Glanzmann's Thrombasthenia (Great Pyrenees Type) | ITGA2B       | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Generalised PRA 2 (Golden Retriever Type)        | TTC8         | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                                                   | Gene          | Genotype | Interpretation                       |
|-------------|-----------------------------------------------------------|---------------|----------|--------------------------------------|
|             | Generalised PRA 1 (Golden Retriever Type)                 | SLC4A3        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Generalised Myoclonic Epilepsy (Rhodesian Ridgeback Type) | DIRAS1        | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Gastrointestinal Polyposis                                | APC_130_AAT T | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Gangliosidosis GM2 HEXB (Shiba Inu Type)                  | HEXB          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Gangliosidosis GM2 (Poodle Type)                          | HEXB          | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |
|             | Xanthine Urolithiasis (Mixed Breed)                       |               | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Canine Genetic Health Certificate™

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Disease                   | Gene  | Genotype | Interpretation                       |
|-------------|---------------------------|-------|----------|--------------------------------------|
|             | Griscelli Syndrome Type 1 | MYO5A | WT/WT    | NORMAL (N/N) - [NO VARIANT DETECTED] |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                       | Genotype | Interpretation                                                                            |
|-------------|---------------------------------------------|----------|-------------------------------------------------------------------------------------------|
| ✓           | Brown Stop Codon = Bs                       |          | $b^s/b^s$ - BROWN/CHOCOLATE, LIVER OR RED [STOP CODON]                                    |
| ✓           | D (Dilute) Locus                            |          | D/D - NO COPY OF MLPH-D ALLELE (DILUTE) - PIGMENT IS NORMAL                               |
| ✓           | Brown TYRP1 [Australian Shepherd Type] = Ba |          | $B^a/B^a$ - NO COPY OF THE BROWN/RED c.555T>G VARIANT [AUSTRALIAN SHEPHERD TYPE] DETECTED |
| ✓           | Brown Insertion = Bc                        |          | $B^c/B^c$ - DOES NOT CARRY BROWN/RED/LIVER or CHOCOLATE [INSERTION]                       |
| ✓           | K Locus (Dominant Black)                    |          | $k^y/k^y$ - RECESSIVE NON-BLACK [COLOUR PATTERN DETERMINED BY A LOCUS]                    |
| ✓           | Brown Deletion = Bd                         |          | $B^d/B^d$ - DOES NOT CARRY BROWN/RED/LIVER or CHOCOLATE [DELETION]                        |
| ✓           | I Pheomelanin Locus Colour Intensity        |          | I/I - NO COPY OF MFSD12 INTENSITY/CREAM ALLELE (NOT LIKELY TO SHOW EXTREME DILUTION)      |

## Coat Color and Trait Certificate

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                 | Genotype  | Interpretation                                                    |
|-------------|---------------------------------------|-----------|-------------------------------------------------------------------|
| ✓           | A Locus (Agouti)                      | $a^t/a^t$ | TAN POINTS/BLACK & TAN or TRICOLOUR MAY BE BRINDLED [SEE K LOCUS] |
| ✓           | EM (MC1R) Locus - Melanistic Mask     | $E^m/E^n$ | ONE COPY OF MASK ALLELE DETERMINED BY A SERIES                    |
| ✓           | Pied (BOTH SINE and REPEAT VARIANTS)  | S/S       | NO PIEBALD, WHITE SPOTTING, FLASH OR PARTI COAT COLOUR            |
| ✓           | E Locus (Cattle Dog Cream Variant) e2 | $E^2/E^2$ | DOMINANT BLACK DOES NOT CARRY "AUSTRALIAN CATTLE DOG" TYPE CREAM  |
| ✓           | E Locus - (Cream/Red/Yellow)          | E/E       | DOMINANT BLACK DOES NOT CARRY YELLOW/RED/WHITE                    |
| ✓           | Ticking & Roan (TR)                   | r/r       | NO ROAN or TICKING IN COAT                                        |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                     | Genotype                       | Interpretation                                                                          |
|-------------|-------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------|
| ✔           | M Locus (Merle/Dapple)                    | m [171bp] / m [171bp]          | NON MERLE SOLID COAT (NO CHANGE TO COAT or EYE COLOUR)                                  |
| ✔           | Long Hair Gene - L1 (Canine C95F)         |                                | POSITIVE - SHOWING THE PHENOTYPE                                                        |
| ✔           | Shedding (MC5R)                           | shd/shd [HIGH SHEDDING]        | TWO COPIES OF THE shd (MC5R) VARIANT DETECTED REFER TO R151W (IC) FOR LEVEL OF SHEDDING |
| ✔           | Curly Coat/Hair Variant 1                 |                                | NEGATIVE FOR THE R151W (CU/CU) VARIANT - NOT SHOWING THE CURLY COAT PHENOTYPE           |
| ✔           | Natural Bob Tail (Short Tail Phenotype)   |                                | NEGATIVE - NOT SHOWING THE PHENOTYPE                                                    |
| ✔           | Brown TYRP1 [Lancashire Heeler Type] = BI | B <sup>L</sup> /B <sup>L</sup> | DOES NOT CARRY BROWN/LIVER [TYRP1]                                                      |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                            | Genotype | Interpretation                                                                                |
|-------------|--------------------------------------------------|----------|-----------------------------------------------------------------------------------------------|
|             | Black and Tan/Saddle Coat Colour                 |          | POSITIVE TWO COPIES of TAN SADDLE VARIANT - MAY EXPRESS THE PHENOTYPE [See E and K Locus]     |
|             | Harlequin (H) Pattern (Great Dane Type)          |          | H/H - DOES NOT CARRY AND WILL NOT EXPRESS ANY HARLEQUIN PATTERN                               |
|             | Oculocutaneous Albinism (Small Breed Type)       |          | NEGATIVE - NOT SHOWING THE PHENOTYPE                                                          |
|             | Long Hair Gene - L4 (Canine DUP GG)              |          | NEGATIVE - NOT SHOWING THE PHENOTYPE                                                          |
|             | Coat Composition CFA28 Gene (Double/Single Coat) |          | udc/udc - TWO COPIES OF THE DOUBLE COAT (DENSE UNDERCOAT) PHENOTYPE DETECTED                  |
|             | Curly Coat/Hair Variant 2                        |          | NEGATIVE FOR THE KRT71 (p.Ser422ArgfsTer) VARIANT - NOT SHOWING THE CURLY COAT (C2) PHENOTYPE |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                                  | Genotype | Interpretation                                                                                        |
|-------------|--------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------|
|             | Furnishings (RSPO2)                                    |          | IC/IC - NEGATIVE FOR FURNISHINGS - WILL HAVE NO FURNISHINGS                                           |
|             | Body Size IGSF1 "Bulky Gene"                           |          | NO COPY INSULIN LIKE GROWTH FACTOR (IGF1R) - ASSOCIATED WITH A REDUCTION of BODY (BULKY) SIZE         |
|             | Dilute D2 Variant (Chow Chow Type)                     |          | D <sup>2</sup> /D <sup>2</sup> - NO COPY OF d2 ALLELE (DILUTE) - PIGMENT IS NORMAL                    |
|             | B Locus (Brown) - Siberian Husky Type                  |          | B <sup>h</sup> /B <sup>h</sup> - NO COPY OF THE BROWN/RED [SIBERIAN HUSKY TYPE] VARIANT DETECTED      |
|             | Cocoa/Brown HPS3 [French Bulldog Type] = Co            |          | B <sup>co</sup> /B <sup>co</sup> - NO COPY OF THE HPS3 COCOA VARIANT                                  |
|             | L Locus (Long Hair/Fluffy) - Lh3 (Eurasier Breed Type) |          | L <sup>3</sup> /L <sup>3</sup> - NO COPY OF THE L3 (EURASIER BREED TYPE) LONG HAIR PHENOTYPE DETECTED |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                                                            | Genotype  | Interpretation                                                     |
|-------------|----------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------|
|             | E Locus (Ancient Red) - eA (Spitz and Scent Hound Type)                          | $E^a/E^a$ | NO COPIES OF ANCIENT RED DETECTED                                  |
|             | Eh Locus (Sable, Cocker Spaniel Type)                                            | $E^h/E^h$ | NO COPIES OF e <sup>h</sup> (SABLE COAT COLOUR) DETECTED           |
|             | Hairlessness (American Hairless Terrier Type)                                    |           | NEGATIVE - NOT SHOWING THE PHENOTYPE                               |
|             | Hairlessness (Scottish Deerhound Type)                                           |           | NEGATIVE - NOT SHOWING THE PHENOTYPE                               |
|             | Himalayan Colour Pattern                                                         | $H/H$     | DOES NOT CARRY AND WILL NOT EXPRESS ANY HIMALAYAN COLOUR PATTERN   |
|             | L Locus (Long Hair/Fluffy) - Lh2 (Akita, Eurasier, Samoyed, Siberian Husky Type) | $L^2/L^2$ | NO COPY OF THE L2 (ARCTIC BREED TYPE) LONG HAIR PHENOTYPE DETECTED |

## Coat Color and Trait Certificate

|                         |                     |                          |              |
|-------------------------|---------------------|--------------------------|--------------|
| <b>Call Name:</b>       | Cubby               | <b>Barcode:</b>          | 25A160021    |
| <b>Registered Name:</b> |                     | <b>Registration:</b>     |              |
| <b>Breed:</b>           | Australian Shepherd | <b>Certificate Date:</b> | 3rd Jul 2025 |
| <b>Sex:</b>             | Female              | <b>Microchip Number:</b> | -            |
| <b>DOB:</b>             | 31st Mar 2022       |                          |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                                   | Genotype | Interpretation                                                                |
|-------------|---------------------------------------------------------|----------|-------------------------------------------------------------------------------|
|             | Pheomelanin Intensity CFA18 (Poodle/Coonhound Type)     |          | I/I - NO COPY OF CFA18 INTENSITY ALLELE (NOT LIKELY TO SHOW EXTREME DILUTION) |
|             | Behaviour Propensity (Belgian Shepherd Type), Variant 2 |          | A10/A10 - GENOTYPE NOT ASSOCIATED WITH ADVERSE BEHAVIOUR OF BELGIAN MALINOIS  |
|             | Pheomelanin Colour Intensity CFA2 (Various Breeds)      |          | I/I - NO COPY OF CFA2 INTENSITY ALLELE (NOT LIKELY TO SHOW EXTREME DILUTION)  |
|             | Pheomelanin Colour Intensity CFA21 (Various Breeds)     |          | I/I - NO COPY OF CFA21 INTENSITY ALLELE (NOT LIKELY TO SHOW EXTREME DILUTION) |
|             | Pheomelanin Intensity CFA15 (Retriever and Poodle Type) |          | I/I - NO COPY OF CFA15 INTENSITY ALLELE (NOT LIKELY TO SHOW EXTREME DILUTION) |
|             | Polydactyl/Dewclaws                                     |          | NEGATIVE - NOT SHOWING THE PHENOTYPE                                          |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test                                | Genotype | Interpretation                                                                                |
|-------------|------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------|
|             | Polydactyly (Great Pyrenees Type)                    |          | NEGATIVE - NOT SHOWING THE PHENOTYPE                                                          |
|             | E Locus (Arctic Breeds Pale/Yellow/White Variant) e3 |          | E <sup>3</sup> /E <sup>3</sup> - DOMINANT BLACK DOES NOT CARRY "HUSKY TYPE" PALE YELLOW/WHITE |
|             | EG Locus (Grizzle)                                   |          | Eg/Eg - NO GRIZZLE PHENOTYPE                                                                  |
|             | Oculocutaneous Albinism (Bullmastiff)                |          | NEGATIVE - NOT SHOWING THE PHENOTYPE                                                          |

| Breed Sense | Coat Color/Trait Test     | Genotype | Interpretation                                                          |
|-------------|---------------------------|----------|-------------------------------------------------------------------------|
| ✓           | Sex Determination - ZFX/Y |          | DOG IS FEMALE                                                           |
|             | Broad Ear                 |          | G/G - HOMOZYGOUS DERIVED ALLELE (LIKELY NOT ASSOCIATED WITH BROAD EARS) |

## Coat Color and Trait Certificate

|                  |                     |                   |              |
|------------------|---------------------|-------------------|--------------|
| Call Name:       | Cubby               | Barcode:          | 25A160021    |
| Registered Name: |                     | Registration:     |              |
| Breed:           | Australian Shepherd | Certificate Date: | 3rd Jul 2025 |
| Sex:             | Female              | Microchip Number: | -            |
| DOB:             | 31st Mar 2022       |                   |              |

This canine's DNA showed the following genotype(s):

| Breed Sense | Coat Color/Trait Test   | Genotype | Interpretation                                                                     |
|-------------|-------------------------|----------|------------------------------------------------------------------------------------|
|             | D Locus (Dilute) - d3   |          | D <sup>3</sup> /D <sup>3</sup> - NO COPY OF d3 ALLELE (DILUTE) - PIGMENT IS NORMAL |
|             | Ear Fold (Floppy/Erect) |          | G/G - LIKELY PRICKED EARS (ERECT)                                                  |