

Laboklin GmbH & Co. KG, Steubenstraße 4, 97688 Bad Kissingen

Ms.  
Lina Stridsberg  
Langhult Byfors 1  
34176 Ljungby  
Schweden

|                       |                      |
|-----------------------|----------------------|
| <b>Report No.:</b>    | <b>2508-W-753597</b> |
| Date of arrival:      | 22.08.2025           |
| Date of report:       | 02.09.2025           |
| Testing started:      | 22.08.2025           |
| Testing completed:    | 02.09.2025           |
| Status of the report: | Final report         |

|                        |                     |
|------------------------|---------------------|
| Species:               | Dog                 |
| Breed:                 | French Bulldog      |
| Gender:                | Female              |
| Name:                  | SKOGSHÄXANS ISABELL |
| Stud book No.:         | SE56403/2022        |
| Chip No.:              | 956000012153015     |
| Date of birth / Age:   | 19.09.2022          |
| Type of sample:        | eNat                |
| Date sample was taken: | 20.08.2025          |
| Owner / Animal-ID:     | Stridsberg, Lina    |
| IT No. / Report-ID:    | ---                 |

**Breeding club discounts were granted for discountable services!**



In genetic testing, we analyse the genetic variants associated with hereditary diseases or genetic traits. The results of these genetic tests always show both alleles of the animal for the variant that has been tested. The symbol "N" indicates the presence of the wild-type allele, while the variant alleles are designated according to the associated diseases (in the example referred to as 'mut').

Possible results:

- N/N: The genetic variant associated with the disease is absent.
- N/mut: The tested animal carries one copy of the analysed variant.
- mut/mut: The tested animal carries two copies of the analysed variant.

It is important to note that solely relying on this genetic information cannot provide definitive insight into whether, when, or to what extent a disease may manifest. For certain diseases, the severity of the condition is influenced by additional factors, some of which are not detectable through genetic testing. Variable penetrance, which involves varying degrees of severity, also frequently plays a role. In cases of recessive hereditary diseases, the disease usually only manifests when an individual possesses two copies of the investigated variant. In contrast, for dominant hereditary diseases, the presence of a single copy of the variant already influences the likelihood of disease occurrence. The annotation numbers **r** (autosomal recessive), **d** (autosomal dominant), and **Xr** (X chromosomal recessive) indicate the respective mode of inheritance.

Not every noticeable result necessarily has health consequences for the animal or its offspring. In cases where the animal is heterozygous (a carrier) for a monogenic autosomal recessive disease, the detected findings have no impact on the animal's health and, when bred with a clear partner, pose no risk to the offspring.

The following applies to non-breed-specific results:

So far, no correlation between the tested variant and the associated clinical symptoms has been scientifically proven in the breed of this animal.

For more comprehensive information regarding specific hereditary diseases, please refer to our website.

## BREED SPECIFIC VARIANTS

| Noticeable results                                                        | Genotype     | Gene           | Variant |
|---------------------------------------------------------------------------|--------------|----------------|---------|
| Canine Multi-Focal Retinopathy CMR1 <sup>r</sup>                          | N/cmr        | BEST1          | G-A     |
| Chondrodystrophy (CDDY and IVDD risk) <sup>d</sup>                        | CDDY/CDDY    | FGF4/<br>CFA12 | COMPLEX |
| Robinow-like syndrome (DVL2) <sup>r,3,4</sup>                             | DVL2/DVL2    | DVL2           | DEL     |
| Unremarkable results                                                      | Genotype     | Gene           | Variant |
| Chondrodysplasia (CDPA) <sup>d</sup>                                      | N/N          | FGF4/<br>CFA18 | COMPLEX |
| Congenital Hypothyroidism with goiter (CHG) - French Bulldog <sup>r</sup> | N/N          | TPO            | T-C     |
| Cystinuria type III <sup>r,5</sup>                                        | N/N          | SLC3A1         | A-G     |
| Degenerative Myelopathy <sup>r,2,4</sup>                                  | N/N (exon 2) | SOD1           | G-A     |
| Hyperuricosuria <sup>r</sup>                                              | N/N          | SLC2A9         | G-T     |
| Malignant Hyperthermia (MH) <sup>d</sup>                                  | N/N          | RYR1           | A-G     |
| Progressive Retinal Atrophy (prcd-PRA) <sup>r,1</sup>                     | N/N (A)      | PRCD           | C-T     |
| von Willebrand disease type I (vWD1) <sup>d,3</sup>                       | N/N          | VWF            | G-A     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Noticeable results                                                             | Genotype  | Gene     | Variant |
|--------------------------------------------------------------------------------|-----------|----------|---------|
| Copper toxicosis - risk factor <sup>d,2,3,4</sup>                              | CT/CT     | ATP7B    | G-A     |
| Degenerative myelopathy risk modifier (DMRM) <sup>d,4</sup>                    | DMRM/DMRM | SP110    | C-T     |
| Dilated cardiomyopathy (DCM3) - Dobermann <sup>4</sup>                         | N/DCM3    | ---      | G-A     |
| Dilated cardiomyopathy (DCM4) - Dobermann <sup>4</sup>                         | N/DCM4    | ---      | G-A     |
| Unremarkable results                                                           | Genotype  | Gene     | Variant |
| Acatalasemia <sup>r</sup>                                                      | N/N       | CAT      | C-T     |
| Achromatopsia - German Shepherd Dog <sup>r</sup>                               | N/N       | CNGA3    | G-A     |
| Achromatopsia - Labrador Retriever <sup>r</sup>                                | N/N       | CNGA3    | DEL     |
| Acral Mutilation Syndrome (AMS) <sup>r</sup>                                   | N/N       | GNDF     | C-T     |
| Acute respiratory distress syndrome (ARDS) <sup>r</sup>                        | N/N       | ANLN     | C-T     |
| Afibrinogenemia (AFG)                                                          | N/N       | FGA      | DEL     |
| Alaskan Husky Enzephalopathy (AHE) <sup>r</sup>                                | N/N       | SLC19A3  | COMPLEX |
| Alaskan Malamute Polyneuropathy (AMPN) <sup>r</sup>                            | N/N       | NDRG1    | C-A     |
| Alexander Disease <sup>d</sup>                                                 | N/N       | GFAP     | G-A     |
| Amelogenesis imperfecta (AI) - Akita <sup>r</sup>                              | N/N       | ACP4     | INS     |
| Amelogenesis imperfecta (AI) - Italian Sighthound <sup>r</sup>                 | N/N       | ENAM     | DEL     |
| Amelogenesis imperfecta (AI) - Parson Russell Terrier <sup>r</sup>             | N/N       | ENAM     | C-T     |
| Amelogenesis imperfecta (AI) - Samoyed <sup>r</sup>                            | N/N       | SLC24A4  | INS     |
| Anhidrotic ectodermal dysplasia (EDA) - German Shepherd <sup>Xr</sup>          | N/N       | EDA      | G-A     |
| Brachyuria <sup>d</sup>                                                        | N/N       | TBXT     | G-C     |
| Bunny Hopping Syndrome (BHS1) <sup>r</sup>                                     | N/N       | EFNB3    | INS     |
| C3 Deficiency <sup>r</sup>                                                     | N/N       | C3       | DEL     |
| Canine Leukocytes Deficiency (CLAD) <sup>r</sup>                               | N/N       | ITGB2    | C-G     |
| Canine Multi-Focal Retinopathy CMR2 <sup>r</sup>                               | N/N       | BEST1    | C-T     |
| Canine Multi-Focal Retinopathy CMR3 <sup>r</sup>                               | N/N       | BEST1    | DEL     |
| Canine Multiple System Degeneration - Chinese Crested Dog <sup>r</sup>         | N/N       | SERAC1   | DEL     |
| Canine Multiple System Degeneration - Kerry Blue Terrier <sup>r</sup>          | N/N       | SERAC1   | C-T     |
| Cardiomyopathy with juvenile mortality (CJM) <sup>r</sup>                      | N/N       | YARS2    | G-A     |
| Cerebellar ataxia (CA1) - Belgian Shepherd Dog <sup>r</sup>                    | N/N       | RALGAPA1 | COMPLEX |
| Cerebellar ataxia (CA1) - Pyrenean Mountain Dog <sup>r</sup>                   | N/N       | SACS     | DEL     |
| Cerebellar degeneration and myositis complex (CDMC) <sup>r</sup>               | N/N       | SLC25A12 | G-A     |
| Cerebellar hypoplasia (CH) <sup>r</sup>                                        | N/N       | RELN     | DEL     |
| Cerebral dysfunction <sup>r</sup>                                              | N/N       | SLC6A3   | G-A     |
| Charcot-Marie-Tooth Neuropathy (CMT) <sup>r</sup>                              | N/N       | SBF2     | C-A     |
| Chondrodysplasia - Chinook, Karelian Bear Dog, Norwegian Elkhound <sup>r</sup> | N/N       | ITGA10   | G-A     |
| CNS atrophy with cerebellar ataxia (CACA) <sup>r</sup>                         | N/N       | SELENOP  | COMPLEX |
| Collie Eye Anomaly (CEA) <sup>r,1</sup>                                        | N/N       | NHEJ1    | COMPLEX |
| Color dilution and neurological defects (CDN) <sup>r</sup>                     | N/N       | MYO5A    | INS     |
| Comma Defect (Spondylocostal Dysostosis) <sup>r</sup>                          | N/N       | HES7     | DEL     |
| Cone Degeneration (CD) <sup>r</sup>                                            | N/N       | CNGB3    | C-T     |
| Congenital Hypothyroidism with goiter (CHG) - Fox, Rat Terrier <sup>r</sup>    | N/N       | TPO      | C-T     |
| Congenital Hypothyroidism with goiter (CHG) - Tenterfield Terrier <sup>r</sup> | N/N       | TPO      | C-T     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                                      | Genotype                     | Gene      | Variant |
|-------------------------------------------------------------------------------------------|------------------------------|-----------|---------|
| Congenital myasthenic syndrome (CMS) - Golden Retriever <sup>r</sup>                      | N/N                          | LOC608697 | G-A     |
| Congenital myasthenic syndrome (CMS) - Labrador Retriever <sup>r</sup>                    | N/N                          | LOC608697 | T-C     |
| Congenital myasthenic syndrome (CMS) - Old Danish Pointing Dog <sup>r</sup>               | N/N                          | CHAT      | G-A     |
| Congenital myasthenic syndrome (CMS) - Russell Terrier <sup>r</sup>                       | N/N                          | CHRNE     | INS     |
| Copper toxicosis - modifier <sup>2,3</sup>                                                | X(N)/X(N) or X(N)/Y          | ATP7A     | C-T     |
| Craniomandibular Osteopathy (CMO) <sup>d,3</sup>                                          | N/N (CMO-0)                  | SLC37A2   | G-A     |
| Cystinuria type IA - Labrador Retriever <sup>r</sup>                                      | N/N                          | SLC3A1    | DEL     |
| Cystinuria type IA - Newfoundland <sup>r</sup>                                            | N/N                          | SLC3A1    | C-T     |
| Cystinuria type IB <sup>d</sup>                                                           | N/N                          | SLC7A9    | G-A     |
| Cystinuria type IIA <sup>d</sup>                                                          | N/N                          | SLC3A1    | DEL     |
| Delayed postoperative haemorrhage (DEPOH) - Deerhound, Greyhound <sup>d,3,4</sup>         | N/N                          | SERPINF2  | C-T     |
| Dental-skeletal-retinal anomaly (DSRA) <sup>r</sup>                                       | N/N                          | MIA3      | DEL     |
| Digital Hyperkeratosis (DH) - Dogue de Bordeaux <sup>r</sup>                              | N/N                          | KRT16     | COMPLEX |
| Digital Hyperkeratosis (DH) - Irish Terrier, Kromfohrländer <sup>r</sup>                  | N/N                          | FAM83G    | G-C     |
| Dilated cardiomyopathy (DCM) - Giant Schnauzer, Standard Schnauzer <sup>r</sup>           | N/N                          | RBM20     | DEL     |
| Dilated cardiomyopathy (DCM) - Manchester Terrier <sup>r,4</sup>                          | N/N                          | ABCC9     | G-A     |
| Dilated cardiomyopathy (DCM) - Nova Scotia Duck Tolling Retriever <sup>r,4</sup>          | N/N                          | LMNA      | DEL     |
| Dilated cardiomyopathy (DCM) - Welsh Springer Spaniel <sup>3,4</sup>                      | N/N                          | PLN       | G-A     |
| Dilated cardiomyopathy (DCM1) - Dobermann <sup>4</sup>                                    | N/N                          | PDK4      | DEL     |
| Dilated cardiomyopathy (DCM2) - Dobermann <sup>4</sup>                                    | N/N                          | TTN       | C-T     |
| Disproportionate dwarfism - Dogo Argentino <sup>r</sup>                                   | N/N                          | PRKG2     | C-A     |
| Disproportionate dwarfism - Magyar Vizsla <sup>r</sup>                                    | N/N                          | PCYT1A    | A-G     |
| Dwarfism (growth-hormone deficiency) - Chihuahua <sup>r</sup>                             | N/N                          | GH1       | DEL     |
| Dwarfism (Skeletal Dysplasia 2) <sup>r</sup>                                              | N/N                          | COL11A2   | C-G     |
| Dyserythropoietic anemia and myopathy (DAMS) - Labrador Retriever <sup>r</sup>            | N/N                          | EHBP1L1   | G-A     |
| Dystrophic Epidermolysis bullosa (DEB) - Central Asian Shepherd <sup>r</sup>              | N/N                          | COL7A1    | C-T     |
| Dystrophic Epidermolysis bullosa (DEB) - Golden Retriever <sup>r</sup>                    | N/N                          | COL7A1    | G-A     |
| Ehlers-Danlos-Syndrome - Catahoula Leopard Dog <sup>r</sup>                               | N/N                          | ADAMTS2   | G-A     |
| Ehlers-Danlos-Syndrome - Doberman <sup>r</sup>                                            | N/N                          | ADAMTS2   | C-T     |
| Epidermolytic hyperkeratosis <sup>r</sup>                                                 | N/N                          | KRT10     | G-T     |
| Episodic Falling <sup>r,2</sup>                                                           | N/N                          | BCAN      | COMPLEX |
| Exercise Induced Collapse (EIC) <sup>r,2</sup>                                            | N/N                          | DNM1      | C-A     |
| Exfoliative Cutaneous Lupus Erythematosus (ECLE) <sup>r</sup>                             | N/N                          | UNC93B1   | C-A     |
| Factor VII Deficiency <sup>r</sup>                                                        | N/N                          | F7        | G-A     |
| Familial Nephropathy (FN) - English Cocker Spaniel, Welsh Springer Spaniel <sup>r,1</sup> | N/N                          | COL4A4    | T-A     |
| Familial Nephropathy (FN) - English Springer Spaniel <sup>r</sup>                         | N/N                          | COL4A4    | G-A     |
| Familial Nephropathy (FN) - Samoyed <sup>xr</sup>                                         | female X(N)/X(N) male X(N)/Y | COL4A5    | G-T     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                                    | Genotype                     | Gene    | Variant |
|-----------------------------------------------------------------------------------------|------------------------------|---------|---------|
| Familial thyroid follicular cell carcinoma risk factor 1 - German Longhair <sup>4</sup> | N/N                          | TPO     | G-A     |
| Familial thyroid follicular cell carcinoma risk factor 2 - German Longhair <sup>4</sup> | N/N                          | TPO     | C-T     |
| Fanconi-Syndrom                                                                         | N/N                          | FAN1    | COMPLEX |
| Finnish Hound Ataxia <sup>r</sup>                                                       | N/N                          | SEL1L   | A-G     |
| Gallbladder Mucoceles (GBM) <sup>d,3</sup>                                              | N/N                          | ABCB4   | INS     |
| Glanzmann's Thrombasthenia (GT) <sup>r</sup>                                            | N/N                          | ITGA2B  | DEL     |
| Glaucoma and Goniodysgenesis (GG) <sup>r</sup>                                          | N/N                          | OLFML3  | G-A     |
| Globoid Cell Leukodystrophy - Terrier <sup>r</sup>                                      | N/N                          | GALC    | T-G     |
| Glycogen Storage Disease GSD Ia - Maltese <sup>r</sup>                                  | N/N                          | G6PC    | C-G     |
| Glycogene storage disease (GSD IIIa) <sup>r</sup>                                       | N/N                          | AGL     | DEL     |
| GM1-Gangliosidosis - Portuguese Water Dog <sup>r</sup>                                  | N/N                          | GLB1    | G-A     |
| GM1-Gangliosidosis - Shiba <sup>r</sup>                                                 | N/N                          | GLB1    | DEL     |
| GM2-Gangliosidosis - Japanese Chin <sup>r</sup>                                         | N/N                          | HEXA    | C-T     |
| GM2-Gangliosidosis - Miniature Poodle <sup>r</sup>                                      | N/N                          | HEXB    | G-T     |
| GM2-Gangliosidosis - Shiba Inu <sup>r</sup>                                             | N/N                          | HEXB    | DEL     |
| Haemophilia A - Boxer <sup>Xr</sup>                                                     | female X(N)/X(N) male X(N)/Y | F8      | G-C     |
| Haemophilia A - German Shepherd Dog <sup>Xr</sup>                                       | female X(N)/X(N) male X(N)/Y | F8      | C-T     |
| Haemophilia A - Labrador Retriever <sup>Xr</sup>                                        | f X(N)/X(N) m X(N)/Y         | F8      | DEL     |
| Haemophilia A - Old English Sheepdog <sup>Xr</sup>                                      | female X(N)/X(N) male X(N)/Y | F8      | G-A     |
| Haemophilia B - American Akita <sup>Xr,2</sup>                                          | female X(N)/X(N) male X(N)/Y | F9      | T-C     |
| Haemophilia B - Hovawart <sup>Xr,2</sup>                                                | female X(N)/X(N) male X(N)/Y | F9      | DEL     |
| Haemophilia B - Lhasa Apso <sup>Xr,2</sup>                                              | female X(N)/X(N) male X(N)/Y | F9      | COMPLEX |
| Haemophilia B - Rhodesian Ridgeback <sup>Xr,2</sup>                                     | female X(N)/X(N) male X(N)/Y | F9      | G-A     |
| Haemorrhagic diathesis (Scott Syndrom) <sup>r</sup>                                     | N/N                          | ANO6    | C-T     |
| Hereditary Ataxia (HA) - Australian Shepherd <sup>r</sup>                               | N/N                          | PNPLA8  | INS     |
| Hereditary Ataxia (HA) - Malinois <sup>r</sup>                                          | N/N                          | SLC12A6 | COMPLEX |
| Hereditary Ataxia (HA) - Norwegian Buhund <sup>r</sup>                                  | N/N                          | KCNIP4  | T-C     |
| Hereditary Ataxia (HA) - Norwegian Elkhound <sup>r</sup>                                | N/N                          | HACE1   | DEL     |
| Hereditary Ataxia (HA) - Old English Sheepdog, Gordon Setter <sup>r</sup>               | N/N                          | RAB24   | A-C     |
| Hereditary Cataract - Wire-Haired Pointing Griffon Korthals <sup>r</sup>                | N/N                          | FYCO1   | DEL     |
| Hereditary deafness (DINGS1) <sup>r</sup>                                               | N/N                          | PTPRQ   | INS     |
| Hereditary deafness (DINGS2) - Doberman <sup>r</sup>                                    | N/N                          | MYO7A   | C-T     |
| Hereditary deafness/Hearing loss (EOAD) - Beauceron <sup>r</sup>                        | N/N                          | CDH23   | C-T     |
| Hereditary deafness/Hearing loss (EOAD) - Rhodesian Ridgeback <sup>r</sup>              | N/N                          | EPS8L2  | DEL     |
| Hereditary deafness/Hearing loss (EOAD) - Rottweiler <sup>r</sup>                       | N/N                          | LOXHD1  | G-C     |
| Hereditary myopathy (CNM) - German Hunting Terrier <sup>r</sup>                         | N/N                          | ACADVL  | C-A     |
| Hereditary myopathy (CNM) - Great Dane <sup>r</sup>                                     | N/N                          | BIN1    | A-G     |
| Hereditary nasal parakeratosis (HNPK) - Greyhound <sup>r</sup>                          | N/N                          | SUV39H2 | DEL     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                           | Genotype  | Gene      | Variant |
|--------------------------------------------------------------------------------|-----------|-----------|---------|
| Hereditary nasal parakeratosis (HNPK) - Labrador Retriever <sup>r,2</sup>      | N/N       | SUV39H2   | A-C     |
| Hereditary Neuropathy <sup>r</sup>                                             | N/N       | NDRG1     | DEL     |
| Hereditary vitamin D-dependent rickets (HVDDR) <sup>r</sup>                    | N/N       | VDR       | DEL     |
| Hypomyelination - English Springer Spaniel <sup>r</sup>                        | N/N       | PLP1      | A-C     |
| Hypomyelination - Weimaraner <sup>r</sup>                                      | N/N       | FNIP2     | DEL     |
| Hypophosphatasia (HPP) <sup>r</sup>                                            | N/N       | ALPL      | A-C     |
| Ichthyosis - American Bulldog <sup>r</sup>                                     | N/N       | NIPAL4    | DEL     |
| Ichthyosis - Chihuahua <sup>r</sup>                                            | N/N       | SDR9C7    | G-A     |
| Ichthyosis - German Shepherd <sup>d</sup>                                      | N/N       | ASPRV1    | A-G     |
| Ichthyosis - Golden Retriever <sup>r</sup>                                     | N/N       | PNPLA1    | INS     |
| Ichthyosis type 2 - Golden Retriever                                           | N/N       | ABHD5     | DEL     |
| Imerslund-Gräsbeck-Syndrome (IGS) - Beagle <sup>r</sup>                        | N/N       | CUBN      | DEL     |
| Imerslund-Gräsbeck-Syndrome (IGS) - Border Collie <sup>r</sup>                 | N/N       | CUBN      | DEL     |
| Imerslund-Gräsbeck-Syndrome (IGS) - Komondor <sup>r</sup>                      | N/N       | CUBN      | G-A     |
| Inflammatory Myopathy (IM) - Dutch Shepherd Dog <sup>r</sup>                   | N/N       | SLC25A12  | A-G     |
| Inflammatory pulmonary disease (IPD) <sup>r</sup>                              | N/N       | AKNA      | DEL     |
| Junctional epidermolysis bullosa (JEB) <sup>r</sup>                            | N/N       | LAMA3     | G-A     |
| Juvenile Brain disease (JBD) <sup>r</sup>                                      | N/N       | PITRM1    | DEL     |
| Juvenile Epilepsy (JE) - Lagotto Romagnolo <sup>r</sup>                        | N/N       | LGI2      | A-T     |
| Juvenile Laryngeal Paralysis & Polyneuropathy (JLPP) <sup>r</sup>              | N/N       | RAB3GAP1  | DEL     |
| Juvenile Myoclonic Epilepsy (JME) <sup>r</sup>                                 | N/N       | DIRAS1    | DEL     |
| L-2-Hydroxyglutaric Aciduria (L2HGA) - Staffordshire Bull Terrier <sup>r</sup> | N/N       | L2HGDH    | COMPLEX |
| L-2-Hydroxyglutaric Aciduria (L2HGA) - Yorkshire Terrier <sup>r</sup>          | N/N       | L2HGDH    | T-C     |
| Lagotto Storage Disease (LSD) <sup>r</sup>                                     | N/N       | ATG4D     | C-T     |
| Laryngeal paralysis with polyneuropathy type 3 (LPPN3) <sup>r</sup>            | N/N       | CNTNAP1   | C-T     |
| Late onset Ataxia (LOA) <sup>r</sup>                                           | N/N       | CAPN1     | C-T     |
| Leonberger Polyneuropathy (LPN1) <sup>r</sup>                                  | N/N       | ARHGEF10  | DEL     |
| Leonberger Polyneuropathy (LPN2) <sup>d,3</sup>                                | N/N       | GJA9      | DEL     |
| Lethal acrodermatitis <sup>r</sup>                                             | N/N       | MKLN1     | T-G     |
| Lethal lung disease (LAMP3) <sup>r</sup>                                       | N/N       | LAMP3     | C-T     |
| Leukocyte Adhesion deficiency III (LAD-III) <sup>r</sup>                       | N/N       | FERMT3    | INS     |
| Leukoencephalomyelopathy (LEMP) - Great Dane, Rottweiler <sup>r,3</sup>        | N/N       | NAPEPLD   | INS     |
| Leukoencephalomyelopathy (LEMP) - Leonberger <sup>r</sup>                      | N/N       | NAPEPLD   | G-C     |
| Leukoencephalopathy (LEP) <sup>r</sup>                                         | N/N       | TSEN54    | C-T     |
| Limb-Girdle Muscular Dystrophy (LGMD) <sup>r</sup>                             | N/N       | SGCA      | G-A     |
| Lundehund syndrome <sup>r</sup>                                                | N/N       | P3H2      | C-G     |
| Lysosomal storage disease (LSD) <sup>r</sup>                                   | N/N       | MAN2B1    | A-G     |
| Macrothrombocytopenia type A <sup>d</sup>                                      | N/N       | TUBB1     | G-A     |
| Macrothrombocytopenia type B <sup>r</sup>                                      | N/N       | TUBB1     | G-A     |
| Macular corneal dystrophy (MCD)                                                | N/N       | LOC489707 | C-A     |
| Maxillary canine tooth mesioversion (MCM) <sup>d,4</sup>                       | N/N       | FTSJ3     | T-C     |
| May-Hegglin Anomaly (MHA) <sup>d</sup>                                         | N/N       | MYH9      | G-A     |
| MCAD deficiency <sup>r</sup>                                                   | N/N       | ACADM     | COMPLEX |
| MDR1 gene variant <sup>r</sup>                                                 | N/N (+/+) | ABCB1     | DEL     |
| Methaemoglobinaemia (MetHg) <sup>r</sup>                                       | N/N       | CYB5R3    | A-C     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                                   | Genotype                     | Gene     | Variant |
|----------------------------------------------------------------------------------------|------------------------------|----------|---------|
| Microphthalmia (RBP4) <sup>r</sup>                                                     | N/N                          | RBP4     | DEL     |
| Mitochondrial fission encephalopathy (MFE) <sup>r</sup>                                | N/N                          | MFF      | COMPLEX |
| Mucopolysaccharidosis (MPS) type IIIa - Dachshund (Dackel) <sup>r</sup>                | N/N                          | SGSH     | DEL     |
| Mucopolysaccharidosis (MPS) type IIIa - New Zealand Huntaway <sup>r</sup>              | N/N                          | SGSH     | INS     |
| Mucopolysaccharidosis (MPS) type VII - Brazilian Terrier <sup>r</sup>                  | N/N                          | GUSB     | G-A     |
| Mucopolysaccharidosis (MPS) type VII - German Shepherd Dog <sup>r</sup>                | N/N                          | GUSB     | C-T     |
| Mucopolysaccharidosis Type VI - Miniature Pinscher                                     | N/N                          | ARSB     | G-A     |
| Mucopolysaccharidosis type VI <sup>r</sup>                                             | N/N                          | ARSB     | C-T     |
| Muscular Dystrophy - American Staffordshire Terrier <sup>r</sup>                       | N/N                          | COL6A3   | DEL     |
| Muscular Dystrophy - Cavalier King Charles Spaniel <sup>Xr</sup>                       | female X(N)/X(N) male X(N)/Y | DMD      | C-A     |
| Muscular Dystrophy - Golden Retriever <sup>Xr</sup>                                    | female X(N)/X(N) male X(N)/Y | DMD      | T-C     |
| Muscular Dystrophy - Landseer <sup>r</sup>                                             | N/N                          | COL6A1   | G-T     |
| Muscular Dystrophy - Norfolk Terrier <sup>Xr</sup>                                     | female X(N)/X(N) male X(N)/Y | DMD      | DEL     |
| Muscular Dystrophy 2 - Cavalier King Charles Spaniel <sup>Xr</sup>                     | f X(N)/X(N) m X(N)/Y         | DMD      | DEL     |
| Musladin-Lueke Syndrome (MLS) <sup>r</sup>                                             | N/N                          | ADAMTSL2 | C-T     |
| Mycobacterium avium complex sensitivity (MAC) <sup>r</sup>                             | N/N                          | CARD9    | DEL     |
| Myostatin variant ('Bully') - Whippet <sup>r</sup>                                     | N/N                          | MSTN     | DEL     |
| Myotonia congenita - Labrador Retriever <sup>r</sup>                                   | N/N                          | CLCN1    | T-A     |
| Myotonia congenita - Miniature Schnauzer <sup>r</sup>                                  | N/N                          | CLCN1    | G-A     |
| Myxomatous Mitral Valve Disease (MMVD) <sup>r,4</sup>                                  | N/N                          | NEBL     | G-A     |
| Narcolepsy - Dachshund (Dackel) <sup>r</sup>                                           | N/N                          | HCRTR2   | G-A     |
| Narcolepsy - Labrador Retriever <sup>r</sup>                                           | N/N                          | HCRTR2   | G-A     |
| Necrotizing Meningoencephalitis (PDE) <sup>r,4</sup>                                   | N/N                          | DLA-DPB1 | DEL     |
| Necrotizing myelopathy (HNM) <sup>r</sup>                                              | N/N                          | IBA57    | G-A     |
| Nemalin myopathy <sup>r</sup>                                                          | N/N                          | NEB      | G-T     |
| Neonatal Cerebellar Abiotrophy (NCCD) - Beagle <sup>r</sup>                            | N/N                          | SPTBN2   | DEL     |
| Neonatal Cerebellar Abiotrophy (NCCD) - Hungarian Greyhound (Magyar agár) <sup>r</sup> | N/N                          | SNX14    | C-T     |
| Neonatal Encephalopathy <sup>r</sup>                                                   | N/N                          | ATF2     | A-C     |
| Neuroaxonal Dystrophy (NAD) - Lagotto Romagnolo, Spanish Water Dog <sup>r</sup>        | N/N                          | TECPR2   | C-T     |
| Neuroaxonal Dystrophy (NAD) - Miniature American Shepherd <sup>r</sup>                 | N/N                          | RNF170   | DEL     |
| Neuroaxonal Dystrophy (NAD) - Papillon <sup>r</sup>                                    | N/N                          | PLA2G6   | G-A     |
| Neuroaxonal Dystrophy (NAD) - Rottweiler <sup>r</sup>                                  | N/N                          | VPS11    | T-C     |
| Neuronal Ceroid Lipofuscinosis - American Staffordshire Terrier <sup>r,2</sup>         | N/N                          | ARSG     | G-A     |
| Neuronal Ceroid Lipofuscinosis CLN1 - Dachshund (Dackel)                               | N/N                          | PPT1     | INS     |
| Neuronal Ceroid Lipofuscinosis CLN1 - Italian Cane Corso <sup>r</sup>                  | N/N                          | PPT1     | G-A     |
| Neuronal Ceroid Lipofuscinosis CLN10 - American Bulldog <sup>r</sup>                   | N/N                          | CTSD     | C-T     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                                                            | Genotype | Gene     | Variant |
|-----------------------------------------------------------------------------------------------------------------|----------|----------|---------|
| Neuronal Ceroid Lipofuscinosis CLN12 - Tibetan Terrier <sup>r</sup>                                             | N/N      | ATP13A2  | DEL     |
| Neuronal Ceroid Lipofuscinosis CLN12 Adult Onset - Australian Cattle Dog                                        | N/N      | ATP13A2  | C-T     |
| Neuronal Ceroid Lipofuscinosis CLN2 - Dachshund <sup>r</sup>                                                    | N/N      | TPP1     | DEL     |
| Neuronal Ceroid Lipofuscinosis CLN5 - Border Collie, Australian Cattle Dog <sup>r</sup>                         | N/N      | CLN5     | C-T     |
| Neuronal Ceroid Lipofuscinosis CLN5 - Golden Retriever <sup>r</sup>                                             | N/N      | CLN5     | DEL     |
| Neuronal Ceroid Lipofuscinosis CLN6 <sup>r</sup>                                                                | N/N      | CLN6     | A-G     |
| Neuronal Ceroid Lipofuscinosis CLN7 - Chihuahua, Chinese Crested Dog <sup>r</sup>                               | N/N      | MFSD8    | DEL     |
| Neuronal Ceroid Lipofuscinosis CLN8 - Australian Shepherd <sup>r</sup>                                          | N/N      | CLN8     | G-A     |
| Neuronal Ceroid Lipofuscinosis CLN8 - Setter <sup>r</sup>                                                       | N/N      | CLN8     | T-C     |
| Night Blindness (CSNB) <sup>r</sup>                                                                             | N/N      | RPE65    | DEL     |
| Obesity                                                                                                         | N/N      | POMC     | DEL     |
| Osteochondrodysplasia (OCD) <sup>r</sup>                                                                        | N/N      | SLC13A1  | COMPLEX |
| Osteogenesis imperfecta - Beagle <sup>d</sup>                                                                   | N/N      | COL1A2   | COMPLEX |
| Osteogenesis imperfecta - Dachshund (Dackel) <sup>r</sup>                                                       | N/N      | SERPINH1 | A-G     |
| Osteogenesis imperfecta - Golden Retriever <sup>d</sup>                                                         | N/N      | COL1A1   | C-G     |
| Paradoxical pseudomyotonia (PP) <sup>r</sup>                                                                    | N/N      | SLC7A10  | C-A     |
| Paroxysmal Dyskinesia (PxD) <sup>r</sup>                                                                        | N/N      | PIGN     | C-T     |
| Paroxysmal Exercise-Induced Dyskinesia (PED) - Shetland Sheepdog (Sheltie) <sup>r</sup>                         | N/N      | PCK2     | G-A     |
| Paroxysmal Exercise-Induced Dyskinesia (PED) - Weimaraner <sup>r</sup>                                          | N/N      | TNR      | INS     |
| Persistent Müllerian Duct Syndrome (PMDS) <sup>r</sup>                                                          | N/N      | AMHR2    | G-A     |
| Phosphofructokinase Deficiency (PFKD) - American Cocker Spaniel, English Springer Spaniel, Whippet <sup>r</sup> | N/N      | PFKM     | C-T     |
| Phosphofructokinase Deficiency (PFKD) - German Spaniel <sup>r</sup>                                             | N/N      | PFKM     | G-A     |
| Pituitary Dwarfism - Karelian Bear Dog, Lapponian Herder <sup>r</sup>                                           | N/N      | POU1F1   | C-A     |
| Polycystic Kidney Disease (PKD) <sup>d</sup>                                                                    | N/N      | PKD1     | G-A     |
| Polydactyly <sup>d</sup>                                                                                        | N/N      | SHH      | C-T     |
| Pompe Disease (Glycogen storage disease II) <sup>r</sup>                                                        | N/N      | GAA      | C-T     |
| Postoperative haemorrhage (P2Y12) - Great Swiss Mountain Dog <sup>d</sup>                                       | N/N      | P2RY12   | DEL     |
| Prekallikrein Deficiency <sup>r</sup>                                                                           | N/N      | KLKB1    | A-T     |
| Primary Ciliary Dyskinesia - Alaskan Malamute <sup>r</sup>                                                      | N/N      | NME5     | DEL     |
| Primary Ciliary Dyskinesia - Old English Sheepdog <sup>r</sup>                                                  | N/N      | CCDC39   | G-A     |
| Primary Lens Luxation (PLL) <sup>r</sup>                                                                        | N/N      | ADAMTS17 | G-A     |
| Primary open angle glaucoma (POAG) - Basset Fauve de Bretagne <sup>r</sup>                                      | N/N      | ADAMTS17 | G-A     |
| Primary Open Angle Glaucoma (POAG) - Beagle, East Siberian Laika <sup>r</sup>                                   | N/N      | ADAMTS10 | C-T     |
| Primary open angle glaucoma (POAG) - Norwegian Elkhound <sup>r</sup>                                            | N/N      | ADAMTS10 | C-T     |
| Primary open angle glaucoma and lens luxation (POAG/PLL) <sup>r</sup>                                           | N/N      | ADAMTS17 | DEL     |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                                                    | Genotype | Gene           | Variant  |
|---------------------------------------------------------------------------------------------------------|----------|----------------|----------|
| Progressive Retinal Atrophy (Bas-PRA1) - Basenji <sup>r</sup>                                           | N/N      | SAG            | T-C      |
| Progressive Retinal Atrophy (BBS2-PRA) - Shetland Sheepdog <sup>r</sup>                                 | N/N      | BBS2           | G-C      |
| Progressive Retinal Atrophy (BBS4-PRA) - Puli <sup>r</sup>                                              | N/N      | BBS4           | A-T      |
| Progressive Retinal Atrophy (CNGA1-PRA) - Shetland Sheepdog <sup>r</sup>                                | N/N      | CNGA1          | DEL      |
| Progressive Retinal Atrophy (crd-PRA) - Dachshund <sup>r</sup>                                          | N/N      | NPHP4          | COMPLEX  |
| Progressive Retinal Atrophy (crd1-PRA) - American Staffordshire Terrier <sup>r</sup>                    | N/N      | PDE6B          | DEL      |
| Progressive Retinal Atrophy (crd2-PRA) - American Pitbull Terrier <sup>r</sup>                          | N/N      | IQCB1          | INS      |
| Progressive Retinal Atrophy (crd3-PRA) associated SNP- Glen of Imaal Terrier <sup>r,5</sup>             | N/N      | associated SNP | C-T      |
| Progressive Retinal Atrophy (dominant PRA) <sup>d</sup>                                                 | N/N      | RHO            | G-C      |
| Progressive Retinal Atrophy (generalized PRA) - Schapendoes <sup>r</sup>                                | N/N      | CCDC66         | INS      |
| Progressive Retinal Atrophy (GR_PRA2) - Golden Retriever <sup>r</sup>                                   | N/N      | TTC8           | DEL      |
| Progressive Retinal Atrophy (GUCY2D-PRA) - German Spitz <sup>r</sup>                                    | N/N      | GUCY2D         | INS      |
| Progressive Retinal Atrophy (IFT122-PRA) - Lapponian Herder <sup>r</sup>                                | N/N      | IFT122         | C-T      |
| Progressive Retinal Atrophy (JPH2-PRA) - Shih Tzu                                                       | N/N      | JPH2           | A-C      |
| Progressive Retinal Atrophy (MERTK-PRA) - Swedish Vallhund <sup>r</sup>                                 | N/N      | MERTK          | COMPLEX  |
| Progressive Retinal Atrophy (NECAP1-PRA) - Giant Schnauzer <sup>r</sup>                                 | N/N      | NECAP1         | G-A      |
| Progressive Retinal Atrophy (Pap-PRA1) - Papillon <sup>r</sup>                                          | N/N      | CNGB1          | INS      |
| Progressive Retinal Atrophy (rcd1-PRA) - Irish Red Setter, Irish Red and White Setter <sup>r</sup>      | N/N      | PDE6B          | C-T      |
| Progressive Retinal Atrophy (rcd1a) - Sloughi <sup>r</sup>                                              | N/N      | PDE6B          | INS      |
| Progressive Retinal Atrophy (rcd3-PRA) - Welsh Corgi Cardigan, Pomeranian, Chinese Crested <sup>r</sup> | N/N      | PDE6A          | DEL      |
| Progressive Retinal Atrophy (Type B1-PRA, HIVEP3) - Miniature Schnauzer <sup>r</sup>                    | N/N      | HIVEP3         | G-A      |
| Progressive Retinal Atrophy early-onset (eo-PRA) - Portuguese Water Dog <sup>r</sup>                    | N/N      | CCDC66         | INS      |
| Progressive Retinal Atrophy early-onset (eo-PRA) - Spanish Water Dog <sup>r</sup>                       | N/N      | PDE6B          | DEL      |
| Protein Losing Nephropathy (PLN) <sup>r</sup>                                                           | N/N      | KIRREL2, NPHS1 | G-C, G-A |
| Pyruvate Dehydrogenase Phosphatase 1 Deficiency <sup>r</sup>                                            | N/N      | PDP1           | C-T      |
| Pyruvatekinase-Deficiency (PK) - Basenji <sup>r</sup>                                                   | N/N      | PKLR           | DEL      |
| Pyruvatekinase-Deficiency (PK) - Beagle <sup>r</sup>                                                    | N/N      | PKLR           | G-A      |
| Pyruvatekinase-Deficiency (PK) - Labrador Retriever <sup>r</sup>                                        | N/N      | PKLR           | C-T      |
| Pyruvatekinase-Deficiency (PK) - Pug <sup>r</sup>                                                       | N/N      | PKLR           | T-C      |
| Raine Syndrome <sup>r</sup>                                                                             | N/N      | FAM20C         | G-A      |
| Renal Cystadenocarcinoma and Nodular Dermatofibrosis (RCND) <sup>d</sup>                                | N/N      | FLCN           | A-G      |
| Renal dysplasia and hepatic fibrosis (RDHN) <sup>r</sup>                                                | N/N      | INPP5E         | G-A      |
| Retinal dysplasia (OSD) - Northern Inuit, Tamaskan <sup>r</sup>                                         | N/N      | COL9A3         | C-T      |
| Sensory Neuropathy (SN) <sup>r</sup>                                                                    | N/N      | FAM134B        | COMPLEX  |

**BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)**

| Unremarkable results                                                                     | Genotype                     | Gene    | Variant |
|------------------------------------------------------------------------------------------|------------------------------|---------|---------|
| Severe Combined Immunodeficiency (SCID) - Frisian Water Dog <sup>r</sup>                 | N/N                          | RAG1    | C-A     |
| Severe Combined Immunodeficiency (SCID) - Russell Terrier <sup>r</sup>                   | N/N                          | PRKDC   | C-A     |
| Shar Pei Autoinflammatory Disease (SPAID) <sup>d,3</sup>                                 | N/N                          | MTBP    | G-A     |
| Spinal Dysraphism <sup>r</sup>                                                           | N/N                          | NKX2-8  | COMPLEX |
| Spinocerebellar Ataxia (SCA) - Alpine Dachsbracke <sup>r</sup>                           | N/N                          | SCN8A   | C-A     |
| Spinocerebellar Ataxia (SCA) - Terrier <sup>r</sup>                                      | N/N                          | KCNJ10  | C-G     |
| Spongi Degeneration with Cerebellar Ataxia (SDCA1) <sup>r</sup>                          | N/N                          | KCNJ10  | T-C     |
| Startle Disease - Spanish Greyhound <sup>r,2</sup>                                       | N/N                          | SLC6A5  | DEL     |
| Startle Disease - Australian Shepherd <sup>r</sup>                                       | N/N                          | GLRA1   | DEL     |
| STGD-PRA (Stargardt disease) <sup>r</sup>                                                | N/N                          | ABCA4   | INS     |
| Succinic semialdehyde dehydrogenase deficiency (SSADHD) <sup>r</sup>                     | N/N                          | ALDH5A1 | G-A     |
| Thrombopathia - Basset Hound <sup>r</sup>                                                | N/N                          | RASGRP2 | DEL     |
| Trapped Neutrophil Syndrome (TNS) <sup>r</sup>                                           | N/N                          | VPS13B  | DEL     |
| Upper Airway Syndrome (UAS) <sup>r</sup>                                                 | N/N                          | ADAMTS3 | C-T     |
| van den Ende-Gupta syndrome (VDEGS) <sup>r</sup>                                         | N/N                          | SCARF2  | DEL     |
| Ventricular arrhythmia (IVA) <sup>3,4</sup>                                              | N/N                          | MICOS13 | G-A     |
| von Willebrand disease type II (vWD2) - German Wire-haired Pointing Dog <sup>r</sup>     | N/N                          | VWF     | T-G     |
| von Willebrand disease type III (vWD3) - Kooikerhondje <sup>r</sup>                      | N/N                          | VWF     | G-A     |
| von Willebrand disease type III (vWD3) - Scottish Terrier <sup>r</sup>                   | N/N                          | VWF     | DEL     |
| von Willebrand disease type III (vWD3) - Shetland Sheepdog (Sheltie) <sup>r</sup>        | N/N                          | VWF     | DEL     |
| X-chromosomal severe immunodeficiency - Basset Hound <sup>Xr</sup>                       | female X(N)/X(N) male X(N)/Y | IL2RG   | DEL     |
| X-chromosomal severe immunodeficiency - Welsh Corgi <sup>Xr</sup>                        | female X(N)/X(N) male X(N)/Y | IL2RG   | DEL     |
| X-linked Myopathy (XL-MTM) - Labrador Retriever <sup>Xr</sup>                            | female X(N)/X(N) male X(N)/Y | MTM1    | C-A     |
| X-linked Myopathy (XL-MTM) - Rottweiler <sup>Xr</sup>                                    | female X(N)/X(N) male X(N)/Y | MTM1    | A-C     |
| Xanthinuria type II - Cavalier King Charles Spaniel, English Cocker Spaniel <sup>r</sup> | N/N                          | MOCOS   | DEL     |
| Xanthinuria type II - Dachshund (Dackel) <sup>r</sup>                                    | N/N                          | MOCOS   | A-G     |
| Xanthinuria type II - English Toy Terrier, Manchester Terrier <sup>r</sup>               | N/N                          | MOCOS   | C-A     |

**Not evaluable**

|                                                                       |
|-----------------------------------------------------------------------|
| GM1-Gangliosidosis - Husky <sup>r</sup>                               |
| Primary open angle glaucoma (POAG) - Basset Hound <sup>r</sup>        |
| Progressive Retinal Atrophy (GR-PRA1) - Golden Retriever <sup>r</sup> |

**COAT COLORS & COAT CHARACTERISTICS**

| Genetic test                    | Genotype  | Allelic series       |
|---------------------------------|-----------|----------------------|
| A-locus (ASIP-Haplotype)        | DY/SY     | DY>SY>AG>BS/<br>BB>a |
| B-locus variant b4 <sup>r</sup> | N/N (B/B) | N(B)>b4              |

## COAT COLORS & COAT CHARACTERISTICS

| Genetic test                                          | Genotype  | Allelic series |
|-------------------------------------------------------|-----------|----------------|
| B-locus variant bc <sup>r</sup>                       | N/N (B/B) | N(B)>bc        |
| B-locus variant bd <sup>r</sup>                       | N/N (B/B) | N(B)>bd        |
| B-locus variant be <sup>r</sup>                       | N/N (B/B) | N(B)>be        |
| B-locus variant bh <sup>r</sup>                       | N/N (B/B) | N(B)>bh        |
| B-locus variant bs <sup>r</sup>                       | N/N (B/B) | N(B)>bs        |
| C-locus variant caL <sup>r</sup>                      | N/N (C/C) | N(C)>caL       |
| C-locus variant OCA2 <sup>r</sup>                     | N/N (C/C) | N(C)>oca2      |
| C-locus variant OCA4 (Bullmastif) <sup>r</sup>        | N/N (C/C) | N(C)>oca4      |
| C-locus variant OCA4 (Dobermann) <sup>r</sup>         | N/N (C/C) | N(C)>oca4      |
| Coat length variant C587T <sup>r</sup>                | L/L       | L>I            |
| Coat length variant del16 <sup>r</sup>                | L/L       | L>I            |
| Coat length variant dupGG <sup>r</sup>                | L/L       | L>I            |
| Coat length variant G284T <sup>r</sup>                | L/L       | L>I            |
| Coat length variant T8193A <sup>r</sup>               | L/L       | L>I            |
| Cocoa <sup>r</sup>                                    | N/N       | N>cocoa        |
| Curly Coat variant C1 <sup>d</sup>                    | NC/NC     | C1>NC          |
| Curly Coat variant C2 <sup>d</sup>                    | NC/NC     | C2>NC          |
| D-locus variant d1 <sup>r</sup>                       | N/N (D/D) | N(D)>d1        |
| D-locus variant d2 <sup>r</sup>                       | N/N (D/D) | N(D)>d2        |
| Double Coat variant 1 <sup>d</sup>                    | D/D       | A>D            |
| Double Coat variant 2 <sup>d</sup>                    | D/D       | A>D            |
| E-locus variant e1 <sup>r</sup>                       | N/N (E/E) | N(E)>e1        |
| E-locus variant e3 <sup>r</sup>                       | N/N (E/E) | N(E)>e3        |
| E-locus variant eA <sup>r</sup>                       | N/N (E/E) | N(E)>eA        |
| E-locus variant eG <sup>r</sup>                       | N/N (E/E) | N(E)>eg        |
| E-locus variant eH <sup>r</sup>                       | N/N (E/E) | N(E)>eh        |
| E-locus variant EM <sup>d</sup>                       | EM/EM     | EM>N(E)        |
| Furnishing <sup>d</sup>                               | f/f       | F>f            |
| H-locus (Harlequin) <sup>d</sup>                      | h/h       | H>h            |
| Hairlessness (Deerhound) <sup>r</sup>                 | N/N       | N>H            |
| I-locus (pheomelanin intensity) <sup>r</sup>          | i/i       | N(I)>i         |
| Improper Coat <sup>r</sup>                            | IC/IC     | N>IC           |
| K-locus                                               | Kb/ky     | Kb>ky          |
| Panda white spotting (German Shepherd) <sup>d</sup>   | N/N       | P>N            |
| S-locus                                               | N/N       |                |
| Saddle Tan - Basset Hound, Welsh Corgi <sup>d</sup>   | St/St     | St>bt          |
| T-locus (Ticking, Roan, Mottle, Spotted) <sup>d</sup> | N/N       | TR>N           |

The current results are only valid for the sample submitted to our laboratory. The sender is responsible for the correct information regarding the sample material. The laboratory can not be made liable. Furthermore, any obligation for compensation is limited to the value of the tests performed.

There is a possibility that other mutations may have caused the disease/phenotype. The analysis was performed according to the latest knowledge and technology.

The laboratory is accredited for the performed tests according to DIN EN ISO/IEC 17025:2018. (except partner lab tests).  
ngs

In rare cases, not all test results can be obtained, usually due to insufficient DNA quality or quantity. We guarantee results for at least 95% of all tests.  
ngs

## **Annotation numbers**

Detailed information on the annotation numbers can be found here:

<https://shop.labogen.com/annotations-info-dog>



## **Explanations on coat colour genetics**

Help for interpreting the genetic variants can be found here:

<https://shop.labogen.com/coat-colour-genetics-dog>



These results are based on the sample material submitted to our laboratory.

This was suitable if not stated otherwise. The submitter is responsible for the accuracy of the information regarding the sample. This report can only be transmitted in toto and unchanged. Doing otherwise requires written permission from Laboklin GmbH & Co. KG.

**LABOKLIN is an officially accredited laboratory according to DIN EN ISO/IEC 17025:2018, DAkkS No. D-PL-13186-01-01 D-PL-13186-1-02 and D-PL-13186-01-03. The accreditation applies to all test procedures listed in the accreditation certificate.**

*K. Schirl*  
Fr. MSc Katja Schirl  
Abt. Molekularbiologie

\*\*\* END of report \*\*\*



Laboklin App