

## Tests included in H860 CombiBreed Health Package for Dogs

### Included Health Conditions Tests

An explanation of these results is accessible in our Online Results Portal, which can be found in your account on the CombiBreed Webshop. Within this portal, you will also discover comprehensive details for each test, including the breed relevance associated with each DNA test.

Code	Test Name
H627	Aberrant Autophagy (LSD)
H758	Abortion (embryonic lethality), BTBD17-related
H386	Achromatopsia 2 (Day Blindness) – German Shepherd
H387	Achromatopsia 2 (Day Blindness) – Labrador Retriever
H904	Achromatopsia 3 (Day Blindness)
H918	Achromatopsia 3 (Day Blindness) – Pointer type
H336	Acral Mutilation Syndrome (AMS)
H338	Acute Respiratory Distress Syndrome (ARDS)
H822	Adult Onset Deafness EAOD (4 associated markers) - Border Collie
H404	Alaskan Husky Encephalopathy (AHE)
H389	Alexander Disease
H680	Amelogenesis Imperfecta (AI) – Akita
H351	Amelogenesis Imperfecta (AI) – Greyhound
H679	Amelogenesis Imperfecta (AI) – Russel Terrier
H759	Australian Labradoodle dystrophinopathy
H788	Beta Mannosidosis
H889	Bilateral Deafness and Vestibular Dysfunction (MYO7A, DINGS2) – Doberman
H450	Bleeding disorder due to P2RY12 defect
H487	Brachyury (Bobtail)
H807	Cardiomyopathy and juvenile mortality (CJM) – Belgian Shepherd
H663	Centronuclear Myopathy (CNM) - Border Collie
H749	Centronuclear Myopathy (CNM) - Labrador Retriever
H331	Cerebellar Ataxia (SDCA1) – Belgian Shepherd
H341	Cerebellar Ataxia (SDCA2) – Belgian Shepherd
H411	Cerebellar Ataxia – Finnish Hound
H355	Cerebellar Hypoplasia Resembling
H356	Chondrodysplasia (Dwarfism)
H709	CLAD (Canine Leukocyte Adhesion Deficiency) Type I – Irish Setter
H484	CLAD (Canine Leukocyte Adhesion Deficiency) Type III – German Shepherd
H344	Cleft Lip / Palate and Syndactyly (CLPS)
H871	CMR1 (Canine Multifocal Retinopathy)
H730	CMR2 (Canine Multifocal Retinopathy)

<b>Code</b>	<b>Test Name</b>
H300	CMR3 (Canine Multifocal Retinopathy)
H950	CNS Atrophy with Cerebellar Ataxia (CACA)
H705	Collie Eye Anomaly CEA, CH
H412	Complement 3 Deficiency (C3) – Brittany Spaniel
H625	Congenital Cornification Disorder
H446	Congenital Dysmorphogenic Hypothyroidism with Goiter
H727	Congenital Eye Malformation – Golden Retriever
H416	Congenital Hypothyroidism 1 - Dog
H485	Congenital Hypothyroidism 2 – Dog
H488	Congenital Hypothyroidism 3 – Dog
H694	Congenital Methemoglobinemia – All breeds
H908	Congenital Methemoglobinemia – Pomeranian
H967	Congenital Muscular Dystrophy (CMD) – Italian Greyhound
H626	Congenital Myasthenic Syndrome (CMS) - Jack Russell Terrier
H339	Congenital Myasthenic Syndrome (CMS) - Labrador Retriever
H425	Congenital Myasthenic Syndrome (CMS) - Old Danish Pointer
H728	Congenital Stationary Night Blindness (CSNB) - Briard
H814	Congenital Stationary Night Blindness (CSNB) – Beagle
H701	Coppertoxicosis
H318	Cortical Cerebellar Abiothrophy (NCCD) – Vizsla
H312	Craniomandibular Osteopathy (CMO) - Terrier Type
H901	Craniomandibular Osteopathy (CMO) – Basset Hound
H929	Cystinuria - English and French Bulldog
H703	Cystinuria I - A - 1
H644	Cystinuria, type II - A
H643	Cystinuria, type II - A - 1
H645	Cystinuria, type II - B
H308	Degenerative Myelopathy Exon 1 (DM Exon 1) – Bernese Mountain Dog
H673	Degenerative Myelopathy Exon 2 (DM Exon 2)
H327	Dental Hypomineralization
H974	Dental-Skeletal-Retinal Anomaly (DSRA)
H952	Diffuse Cystic Renal Dysplasia and Hepatic Fibrosis
H865	Dilated Cardiomyopathy (DCM, PLN-related) – Welsh Springer Spaniel
H459	Dilated Cardiomyopathy (DCM, RBM20-related) – Schnauzer
H434	Dilated Cardiomyopathy (DCM1, PDK4-related) – Doberman
H880	Dilated Cardiomyopathy (DCM3) – Doberman
H881	Dilated Cardiomyopathy (DCM4) – Doberman

Code	Test Name
H876	Disproportionate Dwarfism
H913	Dry Eye Curly Coat Syndrome
H497	Dystrophic Epidermolysis Bullosa (RDEB) – Golden Retriever
H756	Early-onset adult deafness (Rhodesian Ridgeback)
H375	Ectodermal Dysplasia / Skin Fragility Syndrome – Chesapeake Bay Retriever Type
H385	Ectodermal Dysplasia X-linked
H689	Ehlers-Danlos syndrome type 1 - All breeds
H686	Ehlers-Danlos syndrome type 1 - Labrador Retriever
H732	Ehlers-Danlos Syndrome, type 7 - Doberman
H687	Elliptocytosis
H363	Epidermolytic Hyperkeratosis
H672	Exercise Induced Collapse, EIC
H467	Exercise Induced Metabolic Myopathy
H435	Factor VII deficiency
H713	Familial Thyroid Follicular Cell Carcinoma I & II
H863	Fanconi syndrome - FS
H869	Fecundity
H676	FN, Familial Nephropathy – (English) Cocker Spaniel
H633	FN, Familial Nephropathy – English Springer Spaniel
H736	Fucosidosis
H452	Gangliosidosis (GM1) – Portuguese Water Dog
H702	Gangliosidosis (GM1) – Shiba Inu
H361	Gangliosidosis (GM2 Type I) – Japanese Chin
H490	Gangliosidosis (GM2 Type II) – Poodle Type
H440	Glanzmann's Thrombasthenia (GT) 1 – Dog
H496	Glaucoma (POAG)
H737	Globoid Cell Leukodystrophy / Krabbes Disease
H415	Glycogen Storage Disease Ia (GSD1a)
H347	Glycogen Storage Disease II (GSD2, Pompe) – Dog
H397	Glycogen Storage Disease VII (GSD7) – Deutscher Wachtelhund
H472	Goniodysgenesis and glaucoma
H752	Gray Collie Syndrome (Cyclic Neutropenia)
H877	Haemophilia A - Boxer
H491	Haemophilia A – German Shepherd
H780	Haemophilia A – German Shepherd
H953	Haemophilia A – Old English Sheepdog
H931	Haemophilia A – Rhodesian Ridgeback

Code	Test Name
H954	Haemophilia B – Hovawart
H976	Haemophilia B – Lhasa Apso
H977	Haemophilia B – Newfoundland
H607	Haemophilia B – Rhodesian Ridgeback
H392	Hemorrhagic diathesis (Scott Syndrome)
H975	Hereditary Ataxia (HACE-related) – Norwegian Elkhound
H905	Hereditary Ataxia (KCNIP4-related) – Norwegian Buhund
H653	Hereditary Ataxia (RAB24-related) – Old English Sheepdog and Gordon Setter
H781	Hereditary Ataxia - Australian Shepherd
H699	Hereditary Cataract (HC, HSF4-related)
H809	Hereditary Cataract (HC, HSF4-related) – Australian Shepherd
H777	Hereditary Footpad Hyperkeratosis, DSG1-related
H492	Hereditary Footpad Hyperkeratosis, FAM83G-related
H370	Hereditary Nephritis (HN) – Samoyed
H811	Hyperuricemia (HUU)
H364	Hypocatalasia
H432	Hypomyelination / Shaking Puppy Syndrome (SPS) - English Springer Spaniel
H365	Hypomyelination / Shaking Puppy Syndrome (SPS) - Weimaraner
H636	Hypophosphatasia
H858	Ichthyosis type 1 & 2 - Golden Retriever
H378	Ichthyosis – American Bulldog Type
H384	Ichthyosis – German Shepherd
H304	Ichthyosis – Great Dane
H366	IGS (Selective Cobalamin Malabsorption) 1
H367	IGS (Selective Cobalamin Malabsorption) 2
H867	Inflammatory Myopathy (Myositis)
H726	Inflammatory Pulmonary Disease
H368	Inherited Myopathy of Great Danes (IMGD)
H346	Intervertebral Disc Disease (IVDD)
H955	Intestinal Cobalamin Malabsorption (ICM) – Komondor
H718	Junctional Epidermolysis Bullosa (JEB, LAMA3-related) – Australian Cattle Dog
H778	Junctional Epidermolysis Bullosa (JEB, LAMB3-related) – Australian Shepherd
H486	Juvenile Epilepsy (JE/BFJE) – Lagotto Romagnolo
H329	Juvenile Laryngeal Paralysis Polyneuropathy (JLPP)
H335	Juvenile Myoclonic Epilepsy (JME) – Rhodesian Ridgeback
H724	L-2-Hydroxyglutaric Aciduria (L2HGA) – Staffordshire Bull Terrier
H909	L-2-Hydroxyglutaric Aciduria (L2HGA) – Yorkshire Terrier

Code	Test Name
H641	Laryngeal paralysis (LP)
H693	Laryngeal paralysis and polyneuropathy, CNTNAP1-related
H328	Late Onset Ataxia (LOA)
H463	Lethal Acrodermatitis (LAD)
H708	Leukodystrophy
H870	Leukodystrophy, TSEN54-related
H395	Limb-Girdle Muscular Dystrophy (LGMD) – Boston Terrier 1
H816	Limb-Girdle Muscular Dystrophy 2D (LGMD2D) – Dachshund
H864	Lundehund syndrome - LS
H879	Macrothrombocytopenia (MTC)
H317	Macular Corneal Dystrophy
H746	Malignant Hyperthermia (MH) - All breeds
H882	May-Hegglin Anomaly (MHA) - Pug
H629	MDR1 Multi Drug Resistance - Dog
H754	MDR1 Multi Drug Resistance – Phenobarbital Resistance (Border Collie)
H786	Metabolizer of a Cognitive Enhancer
H824	Modifier of copper toxicosis, ATP7A-related
H418	Mucopolysaccharidosis IIIa (MPS3a) - Dachshund
H886	Mucopolysaccharidosis VI (MPS6) – Miniature Pinscher
H451	Mucopolysaccharidosis VII (MPS7) – Brazilian Terrier
H748	Mucopolysaccharidosis VII (MPS7) – German Shepherd
H912	Muscular Dystrophy (MD) – Border Collie
H359	Muscular Dystrophy (MD) – Cavalier King Charles Spaniel
H419	Muscular Dystrophy (MD) – Corgi
H747	Muscular Dystrophy (MD) – Golden Retriever
H735	Muscular Dystrophy (MD) – Labrador Retriever
H688	Muscular Dystrophy-Dyostroglycanopathy (MDD) – Labrador Retriever
H424	Musladin-Lueke Syndroom (MLS)
H391	Myasthenia gravis-like disease
H970	Myeloperoxidase Deficiency
H498	Myotonia Congenita – Australian Cattle Dog and Border Collie
H690	Myotonia Congenita – Labrador Retriever
H738	Myotonia Congenita – Schnauzer
H776	Myotubular Myopathy
H859	Myotubular Myopathy – Boykin Spaniel
H707	Narcolepsy – Dachshund
H697	Narcolepsy – Doberman

<b>Code</b>	<b>Test Name</b>
H698	Narcolepsy – Labrador Retriever
H460	Nasal parakeratosis
H410	Neonatal Cerebellar Ataxia – Coton de Tulear and Havanese
H413	Neonatal Cortical Cerebellar Abiotrophy (NCCD) – Beagle
H812	Neonatal Encephalopathy (NEWS)
H890	Neuroaxonal Dystrophy (NAD) - Papillon
H888	Neuroaxonal Dystrophy (NAD) - Rottweiler
H462	Neuroaxonal Dystrophy (NAD) – Spanish Water Dog
H428	Neuroaxonal Dystrophy (NAD), MFN2-related
H716	Neurological defects with dilute coat colour
H494	Neuronal Ceroid Lipofuscinosis 1 (NCL1) – Dachshund
H429	Neuronal Ceroid Lipofuscinosis 10 (NCL10) – American Bulldog
H499	Neuronal Ceroid Lipofuscinosis 2 (NCL2) – Dachshund
H721	Neuronal Ceroid Lipofuscinosis 5 (NCL5)
H380	Neuronal Ceroid Lipofuscinosis 5 (NCL5) – Golden Retriever
H330	Neuronal Ceroid Lipofuscinosis 6 (NCL6) – Australian Shepherd
H978	Neuronal Ceroid Lipofuscinosis 7 (NCL 7)
H958	Neuronal Ceroid Lipofuscinosis 8 (NCL8) – Saluki
H652	Neuronal Ceroid Lipofuscinosis 8-1 (NCL8-1) – English Setter
H337	Neuronal Ceroid Lipofuscinosis 8-2 (NCL8-2)
H804	Neuronal Ceroid Lipofusconisis 4A (NCL 4A) – American Staffordshire Terrier
H965	Nonsyndromic Hearing Loss – Rottweiler
H895	Obesity
H794	Oculoskeletal Dysplasia 1 (OSD1) / Retinal Dysplasia – Labrador Retriever
H898	Osteochondrodysplasia (OC)
H903	Osteochondromatosis
H430	Osteogenesis Imperfecta (OI) – Beagle
H964	Osteogenesis Imperfecta (OI) – Chow Chow
H431	Osteogenesis Imperfecta (OI) – Dachshund
H381	Osteogenesis Imperfecta (OI) – Golden Retriever
H792	Paroxysmal Dyskinesia (PD) - Markiesje
H634	Paroxysmal Dyskinesia (PD) – Irish Soft Coated Wheaten Terrier
H963	Persistent Mullerian Duct Syndrome (PMDS)
H717	Phosphofructokinase Deficiency (PFK)
H872	Pituitary dwarfism
H951	Pituitary Dwarfism – Karelian Bear Dog
H457	POAG / PLL Primary Glaucoma and Lens Luxation

Code	Test Name
H509	Polycystic Kidney Disease (PKD) – Bull Terrier
H495	Polyneuropathy (AMPN) – Alaskan Malamute
H914	Polyneuropathy (GHPN) – Greyhound
H379	Polyneuropathy (LPN1)
H342	Polyneuropathy (LPN2) – Leonberger
H439	Prekallikrein deficiency
H414	Primary Ciliary Dyskinesia (PCD), CCDC39-related
H383	Primary Glaucoma
H374	Primary hyperoxaluria
H849	Primary Lens Luxation - PLL
H371	Progressive Retinal Atrophy (Bas-PRA) - Basenji
H866	Progressive Retinal Atrophy (BBS2-PRA) – Shetland Sheepdog
H394	Progressive Retinal Atrophy (BBS4-PRA) – Hungarian Puli
H390	Progressive Retinal Atrophy (CNGA1-PRA) – Shetland Sheepdog
H372	Progressive Retinal Atrophy (crd-PRA, NPHP4-related) – Dachshund
H357	Progressive Retinal Atrophy (crd1-PRA) – American Staffordshire Terrier
H358	Progressive Retinal Atrophy (crd2-PRA) – American Pit Bull Terrier
H766	Progressive Retinal Atrophy (crd4-PRA/cord1)
H739	Progressive Retinal Atrophy (Dominant PRA) – Mastiff
H382	Progressive Retinal Atrophy (erd-PRA) - Norwegian Elkhound
H915	Progressive Retinal Atrophy (g-PRA) – Schapendoes
H868	Progressive Retinal Atrophy (GR-PRA1) – Golden Retriever
H473	Progressive Retinal Atrophy (GR-PRA2) – Golden Retriever
H962	Progressive Retinal Atrophy (IFT122-PRA) – Lapponian Herder
H682	Progressive Retinal Atrophy (PRA, NECAP1-related) – Schnauzer
H808	Progressive Retinal Atrophy (PRA1 Type B, HIVEP3-related) – Schnauzer
H373	Progressive Retinal Atrophy (PRA3) – Tibetan Type
H704	Progressive Retinal Atrophy (prcd-PRA)
H768	Progressive Retinal Atrophy (rcd1-PRA) – Irish Setter
H769	Progressive Retinal Atrophy (rcd1a-PRA) – Sloughi
H770	Progressive Retinal Atrophy (rcd3-PRA)
H511	Progressive Retinal Atrophy (rcd4-PRA)
H772	Progressive Retinal Atrophy (XL-PRA, X-Linked)
H878	Progressive Retinal Atrophy Early Onset (eo-PRA) – Spanish Water Dog
H740	Pyruvate Dehydrogenase Phosphatase Deficiency (PDP1)
H445	Pyruvate Kinase Deficiency (PKDef) – Basenji
H455	Pyruvate Kinase Deficiency (PKDef) – Beagle

Code	Test Name
H741	Pyruvate Kinase Deficiency (PKDef) – Labrador Retriever
H454	Pyruvate Kinase Deficiency (PKDef) – Pug
H971	Pyruvate Kinase Deficiency (PKDef) – West Highland White Terrier
H489	Renal Cystadenocarcinoma and Nodular Dermatofibrosis (RCND)
H725	Retinal Dysplasia
H695	Sensory Neuropathy - All breeds
H456	Severe Combined Immunodeficiency (SCID 2) - Dog
H423	Severe Combined Immunodeficiency (SCID) - Dog
H891	Shar-Pei Fever (SPAID)
H510	Skeletal Dysplasia 2 – Labrador Retriever
H683	Spinocerebellar Ataxia (SCA) – Alpine Dachsbracke
H303	Spinocerebellar Ataxia (SCA) – Russel Terrier Type
H803	Spondylocostal Dysostosis (Comma Defect)
H907	Stargardt disease 1
H594	Startle Disease – Miniature Australian Shepherd
H960	Succinic Semialdehyde Dehydrogenase Deficiency – Saluki
H441	Thrombocytopenia – Cavalier King Charles Spaniel
H448	Thrombopathia – American Eskimo Dog
H442	Thrombopathia – Basset Hound
H449	Thrombopathia – Landseer
H787	Trapped Neutrophil Syndrome (TNS)
H911	Unilateral Deafness and Vestibular Dysfunction (PTPRQ, DINGS1) – Doberman
H932	Ventricular Arrhythmias and Sudden Death
H773	Verrucous Epidermal Keratinocytic Nevi
H433	Vitamin D-deficiency rickets, type II
H642	Von Willebrand disease 3 - 2
H677	Von-Willebrands Disease Type 1
H345	Von-Willebrands Disease Type 2-2
H744	Von-Willebrands Disease Type 3
H696	Warburg Micro Syndrome 1 (WARBM1)
H825	Wilson Disease, ATP7B-related
H427	X-linked Myotubular Myopathy (MTM)
H745	X-Linked Severe Combined Immunodeficiency Disease (X-SCID)
H671	Xanthinuria, type 1 - All breeds
H789	Xanthinuria, type 2 – Manchester Terrier

## Other Tests



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<b>Code</b>	<b>Test Name</b>
H916	Coefficient of Inbreeding
H917	Heterozygosity

## Trait Characteristics

Coat colour and patterns are caused by the interaction of several genetic traits. For in-depth insights into these genetic traits, you can visit the online portal with test results or access the knowledgebase via the CombiBreed webshop.

### Coat Colours

Code	Test Name
H857	Coat Colour B-Locus (4 variants) – Dog
H887	Coat Colour Co-Locus (Cocoa)
H847	Coat Colour D-Locus 1 - Dog
H461	Coat Colour D-Locus 2 - Dog
H897	Coat Colour D-Locus 3 - Dog
H791	Coat Colour E-Locus (5 variants) - Dog
H821	Coat Colour I-Locus
H819	Coat Colour K-Locus (Dominant Black)
H751	Coat Colour Oculocutaneous Albinism (OCA1)
H894	Coat Colour Oculocutaneous Albinism (OCA2)
H715	Coat Colour Oculocutaneous Albinism (OCA4-1)
H393	Coat Colour Oculocutaneous Albinism (OCA4-3)

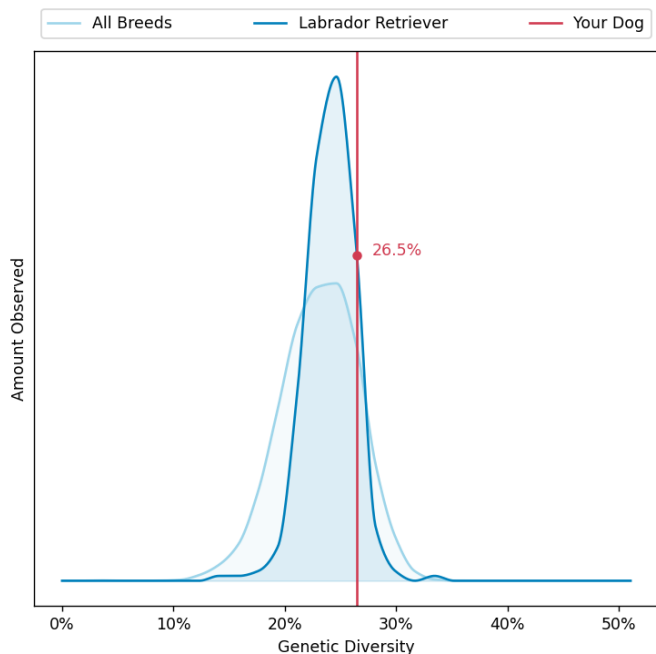
### Coat Patterns

Code	Test Name
H820	Coat Colour A-Locus
H316	Coat Colour H-Locus (Harlequin)
H630	Coat Colour Merle
H354	Coat Colour Panda White Spotting
H763	Coat Colour Roan - Ticked
H326	Coat Colour S-Locus (Piebald)
H910	Coat Colour Saddle tan vs black-and-tan IMPROVED

## Other Coat Features

Code	Test Name
H921	Curly Coat
H681	Curly Coat 2
H667	Hair Length Dog (5 variants)
H848	Improper Coat/Furnishings
H972	Recessive Hypotrichosis – American Hairless Terrier
H973	Recessive Hypotrichosis – Scottish Deerhound

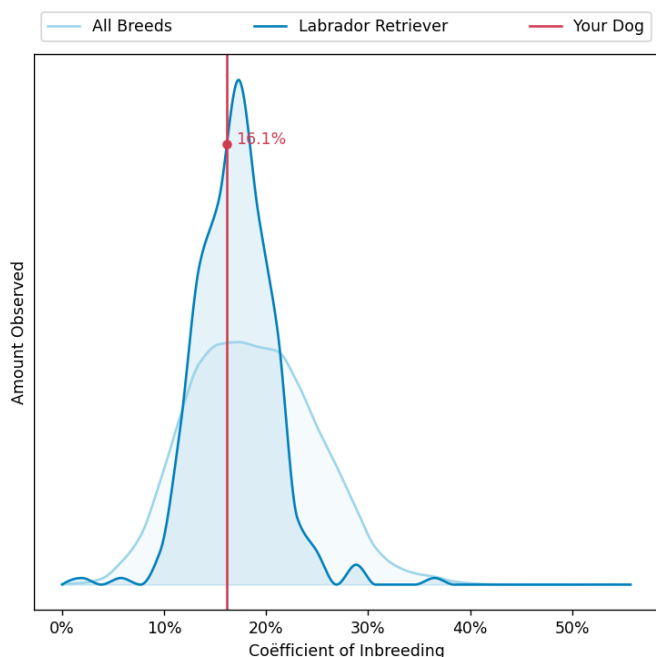
## Genetic Information (Example)



### Diversity/Heterozygosity

Heterozygosity in dogs refers to the genetic situation where a dog inherits two different alleles (gene variants) for a specific trait or gene locus from its parents. This genetic diversity contributes to the variation seen in physical traits, behaviors, and health among individual dogs and different breeds. Maintaining a certain level of heterozygosity is important in breeding programs to avoid an excessive accumulation of harmful recessive traits and promote overall genetic health within dog populations.

\*In case there is an insufficient amount of animals for your specific breed, only a comparison with all breeds will be shown.



### Coefficient of Inbreeding

The Coefficient of Inbreeding (COI) in dogs is a numerical measure that quantifies the probability of two copies of the same gene being inherited from a common ancestor. In simpler terms, it reflects how closely related the parents of a dog are within their family tree. A higher COI indicates a higher likelihood of the dog inheriting identical genes from both parents, which can lead to an increased risk of passing on genetic disorders or health issues.

\*In case there is an insufficient amount of animals for your specific breed, only a comparison with all breeds will be shown.