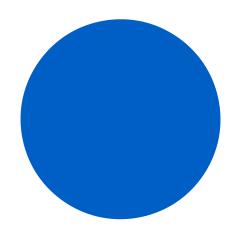
ABOUT Ludwig



Breed



Ludwig is a mix of 1 different breeds.

• 100% Bulldog

Health

We have tested the DNA from Ludwig for 237 different genetic variants (mutations) that increase the risk of developing a health condition.

Increased health risk:



conditions

Carrier only:



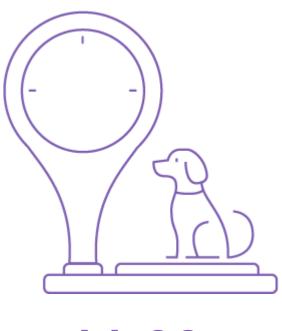
condition

Clear result (no variants detected):



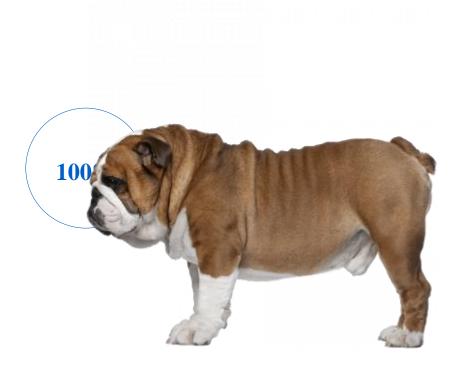
total conditions tested

Weight



44-66 (lb)

Detailed Breed Results



Bulldog

The Bulldog is a companion dog that originated in Great Britain.

Appearance & Grooming

The Bulldog is a medium-sized dog with short legs and a thick body. The breed has a short and soft coat in brindle, white, fawn, red, and fallow. The Bulldog sheds regularly and requires brushing three times per week.

Behavior & Disposition

The Bulldog is affectionate, loyal, courageous, docile, calm, and friendly. They get along well with children and other dogs.

Activity Level

The Bulldog has a moderate activity level and it is easy for the breed to become overweight. For optimal health, the Bulldog should be carefully monitored for calorie consumption and should have daily walks.

Training

train them to put down what's in their mouth on command from an early age. Early socialization and obedience training are also recommended.

The Bulldog has a strong tendency to chew, so it is important to

Health details

We have tested the DNA from Ludwig for 237 different genetic variants

(mutations) that increase the risk of developing a health condition.

Increased health risk:



conditions

"Increased health risk" means your dog has a higher chance of experiencing the health condition(s) identified below. This does **NOT** mean your dog has or will experience this health condition. Our DNA test has identified the presence of one or two variants (genetic mutations) that *increase the likelihood* of this health condition compared to dogs without these variants.

We recommend sharing the results with your vet and asking what you can do to be proactive with your dog's care. This discussion is typically not urgent and can usually wait until your next vet appointment.

In addition, pups from an affected parent are more likely to inherit the genetic health condition. However, this does not mean that all pups will experience the health condition or symptoms.

Carrier only:



condition

"Carrier only" means your dog is **not** at *increased* risk for experiencing the health condition(s) identified below. However, your dog is a carrier for this condition and therefore is more likely to pass it along to their offspring, especially if your dog breeds with another dog that is also a carrier for the same condition.

Carrier only - Multifocal Retinopathy 1

What it is

Multifocal Retinopathy 1 is an inherited retinal disease in which various colors of blisters are observed in the eye.

Possible symptoms

Dogs affected with Multifocal Retinopathy 1 may develop blisterlike lesions in both eyes. The colors, numbers, size, and location of lesions vary widely. Some affected dogs may progressively lose vision completely.

Heredity characteristics

Normally this condition does not severely impair vision, but continuously monitoring their vision with veterinary support is recommended.

Related gene BEST1

Citations Karina E Guziewicz et al 2007

Clear result (no variants detected):



total conditions tested

"Clear" means your dog is **not** at *increased* risk for experiencing the health conditions identified below. Our DNA test has **not** identified the presence of one or more variants (genetic mutations) that increase health risk.

We test for a long list of health conditions and most dogs will have a clear result for the vast majority of them. You can see the complete list of clear results below.

Because DNA is only part of the story when talking about good health, your dog can still experience one or more of these health conditions. The good news is that your dog's

genetics do not increase the likelihood of this happening.

Clear Results

- · Leukocyte Adhesion Deficiency Type III
- Dilated Cardiomyopathy, Variant 3
- Neuroaxonal Dystrophy, Variant 2
- Ehlers-Danlos Syndrome Classic Type 1, Variant 2
- Ehlers-Danlos Syndrome Classic Type 1, Variant 1
- Alexander Disease
- Dilated Cardiomyopathy, Variant 2
- Neuroaxonal Dystrophy, Variant 1
- Child-Like Syndrome
- Hypotrichosis, Variant 2
- X-Linked Hypohidrotic Ectodermal Dysplasia
- Canine Paroxysmal Dyskinesia
- Ectodermal Dysplasia
- Ehlers-Danlos Syndrome Type VII
- Ehlers-Danlos Syndrome Classic-Like Type 1, Variant 2
- Ehlers-Danlos Syndrome Classic-Like Type 1, Variant 1
- Dilated Cardiomyopathy, Variant 1
- Juvenile Neuroaxonal Dystrophy
- Scott Syndrome
- Hypotrichosis, Variant 1
- · Leukocyte Adhesion Deficiency Type I
- Lysosomal Storage Disease
- Gallbladder Mucoceles
- Beta Mannosidosis, Variant 2
- Hereditary Cataracts, Variant 2
- Laryngeal Paralysis
- Lethal Acrodermatitis
- Stargardt Disease 1
- Glycogen Storage Disease Type IIIa
- Trapped Neutrophil Syndrome
- Adverse Reaction to Certain Drugs, Variant 2
- Persistent Mullerian Duct Syndrome
- Periodic Fever Syndrome
- Glycogen Storage Disease Type II (Pompe Disease)

- Glycogen Storage Disease Type Ia
- Multi-Drug Resistance
- Adverse Reaction to Certain Drugs, Variant 1
- Thrombasthenia, Variant 2
- Thrombopathia, Variant 3
- Severe Combined Immunodeficiency Disease, Variant 3
- Myotonia Congenita, Variant 3
- Familial Enamel Hypoplasia Amelogenesis Imperfecta, Variant 2
- Thrombopathia, Variant 2
- Pyruvate Kinase Deficiency, Variant 3
- Congenital Myasthenic Syndrome, Variant 4
- L-2-Hydroxyglutaric Aciduria, Variant 2
- Myotonia Congenita, Variant 2
- Familial Nephropathy, Variant 2
- Familial Adenomatous Polyposis
- Primary Ciliary Dyskinesia, Variant 1
- Mucopolysaccharidosis VI, Variant 1
- Bleeding Disorder due to P2Ry12 Defect
- · Cyclic Hematopoiesis
- L-2-Hydroxyglutaric Aciduria, Variant 1
- Thrombasthenia, Variant 1
- Pyruvate Kinase Deficiency, Variant 2
- · Dental Hypomineralization
- Spinal Dysraphism
- Factor VII Deficiency
- Mucopolysaccharidosis I
- Mucopolysaccharidosis VII, Variant 2
- Mucopolysaccharidosis VII, Variant 1
- Thrombocytopenia
- Primary Hyperoxaluria Type I (Oxalosis I)
- Primary Ciliary Dyskinesia, Variant 2
- Primary Lens Luxation, Variant 2
- Exercise-Induced Collapse
- Intestinal Cobalamin Malabsorption
- · Congenital Myasthenic Syndrome, Variant 3
- Congenital Myasthenic Syndrome, Variant 2
- Congenital Myasthenic Syndrome, Variant 1
- May-Hegglin Anomaly
- Vitamin D-Deficiency Rickets Type II

- Fecundity
- Methemoglobinemia
- · Polycystic Kidney Disease
- Diffuse Cystic Renal Dysplasia and Hepatic Fibrosis
- Narcolepsy, Variant 2
- · Narcolepsy, Variant 1
- Myotonia Congenita, Variant 1
- Dry Eye Curly Coat Syndrome
- Congenital Macrothrombocytopenia
- Familial Nephropathy, Variant 1
- Nephritis (Alport Syndrome)
- Recurrent Inflammatory Pulmonary Disease
- Primary Lens Luxation, Variant 1
- Van Den Ende-Gupta Syndrome
- Mucopolysaccharidosis IIIa
- Macular Corneal Dystrophy
- · Respiratory Distress Syndrome
- Thrombopathia, Variant 1
- Pyruvate Kinase Deficiency, Variant 1
- Phosphofructokinase Deficiency
- Pulmonary Surfactant Metabolism Dysfunction
- Severe Combined Immunodeficiency Disease, Variant 2
- Severe Combined Immunodeficiency Disease, Variant 1
- Mucopolysaccharidosis VI, Variant 2
- Cone-Rod Dysplasia 1A
- Cone-Rod Dystrophy 2
- GM1 Gangliosidosis, Variant 3
- Neonatal Cerebellar Cortical Degeneration
- Cerebellar Abiotrophy
- Duchenne Muscular Dystrophy, Variant 2
- Palmoplantar Hyperkeratosis, Variant 2
- Progressive Retinal Atrophy Type 1, Variant 2
- Von Willebrand Disease II, Variant2
- Progressive Retinal Atrophy, Variant 4
- · Cerebellar Ataxia
- Neuronal Ceroid Lipofuscinosis 8, Variant 3
- Neuronal Ceroid Lipofuscinosis 8, Variant 2
- Neuronal Ceroid Lipofuscinosis 1, Variant 2
- Leukodystrophy (Krabbe Disease)

- Muscular Dystrophy, Variant 3
- Hypothyroidism, Variant 2
- Cone-Rod Dystrophy 1
- Polyneuropathy, Variant 2
- Oculoskeletal Dysplasia 1, Variant 2
- Progressive Retinal Atrophy Crd4/Cord1
- Hemophilia B, Variant 3
- Hemophilia B, Variant 2
- Hemophilia A, Variant 3
- Dystrophic Epidermolysis Bullosa, Variant 2
- Von Willebrand Disease I
- Degenerative Myelopathy, Variant 2
- Progressive Retinal Atrophy, Variant 3
- Progressive Retinal Atrophy Type 1, Variant 1
- Chondrodysplasia
- Neuronal Ceroid Lipofuscinosis 8, Variant 1
- Neuronal Ceroid Lipofuscinosis A, Variant 2
- Neuronal Ceroid Lipofuscinosis 2
- Neuronal Ceroid Lipofuscinosis 4A
- Cystinuria Type 2B
- Achromatopsia
- Osteogenesis Imperfecta, Variant 2
- Leukoencephalomyelopathy
- Craniomandibular Osteopathy, Variant 2
- Multifocal Retinopathy 3 (Cmr3), Variant 2
- Primary Open Angle Glaucoma, Variant 4
- Muscular Dystrophy, Variant 2
- Nemaline Myopathy
- Palmoplantar Hyperkeratosis, Variant 1
- Epidermolytic Hyperkeratosis
- Hyperuricosuria
- Congenital Dyshormonogenic Hypothyroidism with Goiter
- Congenital Hypothyroidism with Goiter
- GM2 Gangliosidosis Type 0 (Sandhoff Disease)
- · GM1 Gangliosidosis, Variant 2
- Osteogenesis Imperfecta, Variant 1
- Limb-Girdle Muscular Dystrophy Type 2F, Variant 3
- Spondylocostal Dysostosis
- Neuronal Ceroid Lipofuscinosis 5, Variant 2

- Nasal Parakeratosis, Variant 2
- Hemophilia A, Variant 2
- Hemophilia A, Variant 1
- Simplex Epidermolysis Bullosa
- Dystrophic Epidermolysis Bullosa, Variant 1
- Von Willebrand Disease III, Variant 1
- Progressive Retinal Atrophy With Progressive Rod-Cone Degeneration
- Cone-Rod Dysplasia 1
- Spinocerebellar Ataxia, Variant 2
- · Spinocerebellar Ataxia with Myokymia and Seizure
- Late Spinocerebellar Ataxia
- Ichthyosis, Variant 4
- Oculoskeletal Dysplasia 1, Variant 1
- Neuronal Ceroid Lipofuscinosis A, Variant 1
- Spinocerebellar Degeneration and Neuronal Vacuolation
- · Neuronal Ceroid Lipofuscinosis 10
- Neuronal Ceroid Lipofuscinosis 5, Variant 1
- Cystinuria
- Hemeralopia Achromatopsia (Cone Degeneration)
- Osteogenesis Imperfecta, Type III
- Leukodystrophy
- Exfoliative Cutaneous Lupus Erythematosus
- Hypocatalasia
- Menkes Disease
- Craniomandibular Osteopathy, Variant 1
- Dandy Walker Syndrome
- · Multifocal Retinopathy 3 (Cmr3), Variant 1
- Multifocal Retinopathy 2 (Cmr2)
- Polyneuropathy, Variant 1
- · Congenital Eye Malformation
- Encephalopathy
- Primary Open Angle Glaucoma, Variant 3
- Primary Open Angle Glaucoma, Variant 2
- Bilateral Deafness and Vestibular Dysfunction
- · Muscular Dystrophy, Variant 1
- Exercise Induced Metabolic Myopathy
- Myotubular Myopathy 1, Variant 2
- Skeletal Dysplasia 2 (Disproportionate Dwarfism)
- Hypothyroidism, Variant 1

- Acral Mutilation Syndrome
- Familial Enamel Hypoplasia Amelogenesis Imperfecta, Variant 1
- Pyruvate Dehydrogenase Phosphatase Deficiency
- Musladin-Lueke Syndrome
- Late Imerslund-Grasbeck Syndrome
- Early Imerslund-Grasbeck Syndrome
- GM2 Gangliosidosis Type 1 (Tay Sachs)
- GM1 Gangliosidosis, Variant 1
- C3 Deficiency
- Spinocerebellar Ataxia, Variant 1
- Limb-Girdle Muscular Dystrophy Type 2F, Variant 2
- Progressive Retinal Atrophy, Variant 2
- Duchenne Muscular Dystrophy, Variant 1
- Limb-Girdle Muscular Dystrophy Type 2F, Variant 1
- Generalized Myoclonic Epilepsy, with Photosensitivity
- Polyneuropathy 2
- Cystinuria Type 2A
- Ichthyosis, Variant 2
- · Pituitary Dwarfism
- · Hemophilia B, Variant 1
- Cleft Palate With Syndactyly
- Von Willebrand Disease II, Variant 1
- Degenerative Myelopathy, Variant 1
- Progressive Retinal Atrophy, Variant 1
- Progressive Retinal Atrophy GR2
- · Hypomyelination of the Central Nervous System
- Hypophosphatasia
- Nasal Parakeratosis, Variant 1
- Cone-Rod Dysplasia 3
- Juvenile Cerebellar Ataxia
- Early Cerebellar Ataxia
- Ichthyosis, Variant 1
- Malignant Hyperthermia
- Renal Cystadenocarcinoma and Nodular Dermatofibrosis
- Neuronal Ceroid Lipofuscinosis 6
- Shaking Puppy Syndrome
- Osteogenesis Imperfecta, Variant 3
- Beta Mannosidosis, Variant 1
- Neonatal Encephalopathy with Seizures

- Bardet-Biedl Syndrome 4
- Primary Open Angle Glaucoma, Variant 1
- Unilateral Deafness and Vestibular Dysfunction
- Myotubular Myopathy 1, Variant 1
- Inherited Myopathy
- Benign Familial Juvenile Epilepsy
- Prekallikrein Deficiency

Genetically Influenced Behaviors

Some DNA in your dog's genes can have an influence on certain behaviors, which can make a behavior more or less likely.

Unlike for breed or health, our science behind these behaviors is at the exploratory stage. You can help improve the science by providing feedback below.

Note that other factors such as training and upbringing could have a larger effect than the DNA.

Desire for affection or attention

How much your dog tends to stay close you or other caregivers to obtain affection or attention. Also, a tendency to become agitated when attention is given elsewhere.





Aggression directed at other dogs

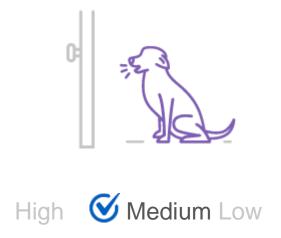
How much aggression your dog displays when approached by unfamiliar dogs.





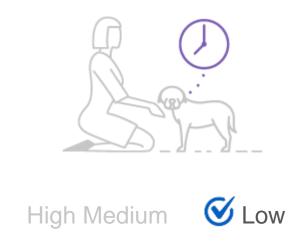
Barking

How much your dog barks due to being separated from you or other caregivers.



Physical contact with you

Indicates the length of time your dog tries to maintain physical contact with you or other caregivers.



Fetching

How much your dog desires to fetch objects such as balls and sticks



High Medium



"Genetic" Weight

The genetic weight of Ludwig is calculated to be:



44-66 (lb)

How do we predict the weight of adult dogs?

Our test analyzes several dozens of genetic markers that are known to influence the weight of adult dogs.

We have developed a weight prediction algorithm that estimates the adult weight by looking at the relationship between the measured genetic data and the published weight data of a large number of dogs.

Our method also incorporates cutting-edge technology to take account of the effect of breed, resulting in a better weight prediction even on mixed breed dogs.

How accurate are the results?

While our test considers the genetics of your dog to predict the adult weight, numerous other factors also influence the weight. Since genetics only explains about 80% of the weight in a *healthy* adult dog we provide a range of weight.

A major factor is the type of nutrition and amount consumed. The number of overweight dogs has doubled over the past decade so it is something to examine.