

## Results for Brandywine'S Red Freckles

### Brandywine'S Red Freckles's genetic health profile:

- ✓ Brandywine'S Red Freckles is **at-risk** for the following 1 disease:
  - Multidrug resistance 1
- ✓ Brandywine'S Red Freckles is not a carrier for any of the diseases tested

### Brandywine'S Red Freckles's appearance profile:

- ✓ Brandywine'S Red Freckles is a **Female**
- ✓ Brandywine'S Red Freckles's coat is likely **Long** and **Brown** with tan points in color
- ✓ Brandywine'S Red Freckles's face likely **Has No Mask on the Muzzle** and a **Brown** nose
- ✓ Brandywine'S Red Freckles's tail is likely **Normal** in length

### Explanation of Results

**Normal** A "normal" result means that your dog does not have the mutation that causes the associated genetic disease.

**Carrier** A "carrier" result indicates that your dog may have inherited one copy of the mutation that has been reported to cause this genetic disease. Your dog is not clinically affected by this mutation because two copies of the mutation are required to cause this disease.

**At-Risk** An "at-risk" result indicates that your dog may have inherited one or two copies of the mutation that has been reported to cause this genetic disease. Depending on the mode of genetic inheritance for this particular disease, inheriting one **or** two mutant copies of the gene may result in the disease.

*You may want to consider ordering follow-up testing to confirm the results of this initial screen for any dog that is "at-risk" for a disease.*

## Blood and Clotting

Coagulation factor VII deficiency	Normal
Elliptocytosis	Normal
Hemophilia A (German Shepherd Dog, type 2)	Normal
Pyruvate kinase deficiency (Labrador Retriever type)	Normal
Thrombopathia (American Eskimo Dog type)	Normal
Von Willebrand disease I	Normal
Von Willebrand disease II	Normal
Hemophilia A (Boxer type)	Normal
Hemophilia A (German Shepherd Dog, type 1)	Normal
Leukocyte adhesion deficiency, type III	Normal
Pyruvate kinase deficiency (Basenji type)	Normal
Glycogen storage disease VII (Wachtelhund type)	Normal
Hemophilia B (Cairn Terrier type)	Normal
Pyruvate kinase deficiency (Beagle type)	Normal
Pyruvate kinase deficiency (Pug type)	Normal
Thrombopathia (Basset Hound type)	Normal
Von Willebrand disease III (Kooikerhondje type)	Normal
Von Willebrand disease III (Scottish Terrier type)	Normal
Glanzmann's thrombasthenia (Great Pyrenees type)	Normal
Glanzmann's thrombasthenia (Otterhound type)	Normal
Hemophilia B (Rhodesian Ridgeback type)	Normal
May-Hegglin anomaly	Normal
P2RY12 receptor platelet disorder	Normal
Prekallikrein deficiency	Normal

## Cancer

Renal cystadenocarcinoma and nodular dermatofibrosis	Normal
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## Dental

Amelogenesis imperfecta	Normal
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## Drug Metabolism

Multidrug resistance 1	At-Risk
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## Eyes

Collie eye anomaly	Normal
Cone degeneration	Normal
GM2 Gangliosidosis (Poodle type)	Normal
Hereditary cataracts (Australian Shepherd type)	Normal
Progressive retinal atrophy (Bullmastiff/Mastiff type)	Normal
Progressive retinal atrophy, Cone-rod dystrophy 1	Normal
Progressive retinal atrophy, Golden Retriever 2	Normal
Progressive retinal atrophy, Progressive rod-cone degeneration	Normal
Hereditary cataracts	Normal
Multifocal retinopathy 1	Normal
Primary lens luxation	Normal
Progressive retinal atrophy, Golden Retriever 1	Normal
Congenital stationary night blindness	Normal
GM1 Gangliosidosis (Alaskan Husky type)	Normal
Progressive retinal atrophy (Basenji type)	Normal
Progressive retinal atrophy (Irish Setter type)	Normal
Cone degeneration (German Shorthaired Pointer type)	Normal
Dry eye curly coat syndrome	Normal
GM1 Gangliosidosis (Shiba Inu type)	Normal

Multifocal retinopathy 2	Normal
Progressive retinal atrophy, generalized	Normal
Progressive retinal atrophy, PRA1 (Papillon type)	Normal
Progressive retinal atrophy, Rod-cone dysplasia 3	Normal
Early retinal degeneration	Normal
GM1 Gangliosidosis (Portuguese Water Dog type)	Normal
Multifocal retinopathy 3	Normal
Primary open angle glaucoma	Normal
Progressive retinal atrophy (Sloughi type)	Normal
Progressive retinal atrophy, Cone-rod dystrophy 3	Normal
Warburg micro syndrome (Black Russian Terrier and Rottweiler type)	Normal

## Heart

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Dilated cardiomyopathy	Normal
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## Immune System

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Trapped neutrophil syndrome	Normal
Cyclic neutropenia	Normal
Leukocyte adhesion deficiency, type III	Normal
Severe combined immunodeficiency disease (Terrier type)	Normal
Severe combined immunodeficiency disease (Wetterhoun type)	Normal
Complement 3 deficiency	Normal
Leukocyte adhesion deficiency, type I	Normal
Primary ciliary dyskinesia	Normal
Severe combined immunodeficiency disease, X-linked (Basset Hound type)	Normal
Severe combined immunodeficiency disease, X-linked (Corgi type)	Normal

## Liver/Gastrointestinal

Gallbladder mucoceles	Normal
Intestinal cobalamin malabsorption (Border Collie type)	Normal
Glycogen storage disease IIIa	Normal
Intestinal cobalamin malabsorption (Beagle type)	Normal

## Metabolic

GM2 Gangliosidosis (Poodle type)	Normal
Pyruvate kinase deficiency (Labrador Retriever type)	Normal
Intestinal cobalamin malabsorption (Border Collie type)	Normal
Mucopolysaccharidosis VII (Shepherd type)	Normal
Neuronal ceroid lipofuscinosis 4A	Normal
Neuronal ceroid lipofuscinosis 6	Normal
Neuronal ceroid lipofuscinosis 8 (Australian Shepherd type)	Normal
Pyruvate kinase deficiency (Basenji type)	Normal
Glycogen storage disease VII (Wachtelhund type)	Normal
GM1 Gangliosidosis (Alaskan Husky type)	Normal
Mucopolysaccharidosis IIIA (New Zealand Huntaway type)	Normal
Neuronal ceroid lipofuscinosis 1	Normal
Neuronal ceroid lipofuscinosis 2	Normal
Pyruvate dehydrogenase deficiency	Normal
Pyruvate kinase deficiency (Beagle type)	Normal
Pyruvate kinase deficiency (Pug type)	Normal
Adult-onset neuronal ceroid lipofuscinosis	Normal
Globoid cell leukodystrophy (Irish Setter type)	Normal
Globoid cell leukodystrophy (Terrier type)	Normal
Glycogen storage disease Ia	Normal
Glycogen storage disease IIIa	Normal
GM1 Gangliosidosis (Shiba Inu type)	Normal

Mucopolysaccharidosis I	Normal
Neuronal ceroid lipofuscinosis 10	Normal
Neuronal ceroid lipofuscinosis 8 (Setter type)	Normal
Pompe disease	Normal
GM1 Gangliosidosis (Portuguese Water Dog type)	Normal
GM2 Gangliosidosis (Japanese Chin type)	Normal
Intestinal cobalamin malabsorption (Beagle type)	Normal
L-2-hydroxyglutaric aciduria (Staffordshire Bull Terrier type)	Normal
Mucopolysaccharidosis IIIA (Dachshund type)	Normal

## Midline Defect

Warburg micro syndrome (Black Russian Terrier and Rottweiler type)	Normal
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## Musculoskeletal

Degenerative myelopathy	Normal
Exercise-induced collapse	Normal
Myotubular myopathy 1	Normal
Osteochondrodysplasia	Normal
Congenital myasthenic syndrome (Labrador Retriever type)	Normal
Golden Retriever muscular dystrophy	Normal
Mucopolysaccharidosis VII (Shepherd type)	Normal
Osteogenesis imperfecta (Golden Retriever type)	Normal
Skeletal dysplasia 2	Normal
Glycogen storage disease VII (Wachtelhund type)	Normal
GM1 Gangliosidosis (Alaskan Husky type)	Normal
Osteogenesis imperfecta (Beagle type)	Normal
Osteogenesis imperfecta (Dachshund type)	Normal
Pembroke Welsh Corgi Duchenne muscular dystrophy	Normal

Adult-onset neuronal ceroid lipofuscinosis	Normal
Chondrodysplasia (Karelian Bear Dog and Norwegian Elkhound type)	Normal
Congenital myasthenic syndrome (Old Danish Pointer type)	Normal
Glycogen storage disease IIIa	Normal
GM1 Gangliosidosis (Shiba Inu type)	Normal
Greyhound polyneuropathy	Normal
Mucopolysaccharidosis I	Normal
Myotonia congenita (Australian Cattle Dog type)	Normal
Myotonia congenita (Schnauzer type)	Normal
Pompe disease	Normal
Vitamin D dependent rickets, type II (Pomeranian type)	Normal
Alaskan Malamute polyneuropathy	Normal
GM1 Gangliosidosis (Portuguese Water Dog type)	Normal
Inherited myopathy of Great Danes	Normal
Myostatin deficiency (Whippet and Longhaired Whippet type)	Normal
Polyneuropathy (Leonberger and Saint Bernard type)	Normal
Warburg micro syndrome (Black Russian Terrier and Rottweiler type)	Normal

## Neurologic

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Degenerative myelopathy	Normal
Exercise-induced collapse	Normal
GM2 Gangliosidosis (Poodle type)	Normal
Sensory ataxic neuropathy	Normal
Congenital myasthenic syndrome (Labrador Retriever type)	Normal
Narcolepsy (Labrador Retriever type)	Normal
Neonatal encephalopathy with seizures	Normal
Neuronal ceroid lipofuscinosis 4A	Normal
Neuronal ceroid lipofuscinosis 6	Normal
Neuronal ceroid lipofuscinosis 8 (Australian Shepherd type)	Normal

Alaskan Husky encephalopathy	Normal
Benign familial juvenile epilepsy	Normal
Canine multiple system degeneration (Chinese Crested type)	Normal
Canine multiple system degeneration (Kerry Blue Terrier type)	Normal
Cerebellar ataxia (Finnish Hound type)	Normal
GM1 Gangliosidosis (Alaskan Husky type)	Normal
Mucopolysaccharidosis IIIA (New Zealand Huntaway type)	Normal
Neonatal cerebellar cortical degeneration	Normal
Neuronal ceroid lipofuscinosis 1	Normal
Neuronal ceroid lipofuscinosis 2	Normal
Startle disease	Normal
Adult-onset neuronal ceroid lipofuscinosis	Normal
Congenital myasthenic syndrome (Old Danish Pointer type)	Normal
Globoid cell leukodystrophy (Irish Setter type)	Normal
Globoid cell leukodystrophy (Terrier type)	Normal
GM1 Gangliosidosis (Shiba Inu type)	Normal
Greyhound polyneuropathy	Normal
Late onset ataxia	Normal
Mucopolysaccharidosis I	Normal
Myotonia congenita (Australian Cattle Dog type)	Normal
Myotonia congenita (Schnauzer type)	Normal
Narcolepsy (Doberman Pinscher type)	Normal
Neuronal ceroid lipofuscinosis 10	Normal
Neuronal ceroid lipofuscinosis 8 (Setter type)	Normal
Spinocerebellar ataxia	Normal
Alaskan Malamute polyneuropathy	Normal
Episodic falling syndrome	Normal
GM1 Gangliosidosis (Portuguese Water Dog type)	Normal
GM2 Gangliosidosis (Japanese Chin type)	Normal
L-2-hydroxyglutaric aciduria (Staffordshire Bull Terrier type)	Normal
Mucopolysaccharidosis IIIA (Dachshund type)	Normal

Narcolepsy (Dachshund type)	Normal
Polyneuropathy (Leonberger and Saint Bernard type)	Normal
Warburg micro syndrome (Black Russian Terrier and Rottweiler type)	Normal

## Neuromuscular

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Globoid cell leukodystrophy (Irish Setter type)	Normal
Globoid cell leukodystrophy (Terrier type)	Normal

## Reproduction

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Primary ciliary dyskinesia	Normal
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## Respiratory

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Primary ciliary dyskinesia	Normal
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## Skin and Hair

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Anhidrotic ectodermal dysplasia	Normal
Dystrophic epidermolysis bullosa	Normal
Hereditary nasal parakeratosis	Normal
Ichthyosis (Golden Retriever type)	Normal
Ectodermal dysplasia	Normal
Renal cystadenocarcinoma and nodular dermatofibrosis	Normal
Dry eye curly coat syndrome	Normal
Epidermolytic hyperkeratosis	Normal
Hereditary footpad hyperkeratosis (Irish Terrier and Kromfohrländer type)	Normal

## Urinary Tract

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Familial nephropathy (Cocker Spaniel type)	Normal
Hyperuricosuria	Normal
Renal cystadenocarcinoma and nodular dermatofibrosis	Normal
Cystinuria (Australian Cattle Dog type)	Normal
Fanconi syndrome	Normal
Hereditary nephritis (Samoyed type)	Normal
Primary ciliary dyskinesia	Normal
Cystinuria (Miniature Pinscher type)	Normal
Persistent Müllerian duct syndrome	Normal
Primary hyperoxaluria	Normal