

German Shepherd Dog



[Labgenvet](#)

[Donner, 2018](#)

[Donner, 2023](#)

Disease	Gene	Reference	# tests	M/N	
Degenerative Myelopathy (DM)	SOD1	Labgenvet, 2021	312	35.3%	
		Donner, 2018	246	31.3%	
		Donner, 2023	15645	32.5%	
Canine Scott Syndrome (CSS)	ANO6	Donner, 2023	15648	2.5%	
MDR1 (Multidrug Resistance 1) Medication Sensitivity	ABCB1	Donner, 2023	15647	1.5%	Dominant
Collie Eye Anomaly (CEA)	NHEJ1	Donner, 2023	15648	0.8%	
Dilated Cardiomyopathy (Schnauzer; DCM)	RBM20	Donner, 2023	15648	0.51%	
Canine Leukocyte Adhesion Deficiency (CLAD), Type III	FERMT3	Donner, 2023	15648	0.44%	
Progressive Rod-Cone Degeneration (prcd-PRA)	PRCD	Donner, 2023	15611	0.32%	
Mucopolysaccharidosis, Type VII (German Shepherd; MPS VII)	GUSB	Donner, 2023	15648	0.15%	
Renal Cystadenocarcinoma, Nodular Dermatofibrosis (RCND)	FLCN	Donner, 2023	15648	0.13%	
Von Willebrand's Disease, Type 1 (vWD 1)	VWF	Donner, 2023	15648	0.13%	
Cystinuria Type I-A (SLC3A1 p.I192V)	SLC3A1	Donner, 2023	15647	0.11%	
Stargardt Disease (Labrador Retriever)	ABCA4	Donner, 2023	15647	0.11%	
Ichthyosis (Discovered in the Golden Retriever)	PNPLA1	Donner, 2023	15648	0.11%	
Cystinuria Type I-B (SLC7A9 p.A217T)	ALC7A9	Donner, 2023	15645	0.09%	
Cone-Rod Dystrophy (cord1-PRA/crd4)	RPGRIP1	Donner, 2023	15609	0.07%	
Dilated Cardiomyopathy risk factor (PDK4-related)	PDK4	Donner, 2023	15648	0.06%	Dominant
Dilated Cardiomyopathy risk factor (TTN-related)	TTN	Donner, 2023	15648	0.06%	Dominant
Hyperuricosuria (HUU)	SLC2A9	Donner, 2023	15648	0.06%	
Exercise-Induced Collapse (EIC)	DMN1	Donner, 2023	15643	0.04%	
Acral Mutilation Syndrome (AMS)	GDNF	Donner, 2023	15648	0.04%	
Canine Multifocal Retinopathy 1 (Mastiff breeds; CMR1)	BEST1	Donner, 2023	15648	0.04%	
Chondrodystrophy and Intervertebral Disc Disease Risk (CDDY)	FGF4	Donner, 2023	15570	0.03%	Dominant
Early-Onset Progressive Polyneuropathy (Greyhound)	NDRG1	Donner, 2023	15647	0.03%	
Macrothrombocytopenia (Terriers)	TUBB1	Donner, 2023	15648	0.03%	
Polyneuropathy, Ocular Abnormalities, Neuronal Vacuolation	RAB3GAP1	Donner, 2023	15462	0.02%	
Centronuclear Myopathy (Labrador Retriever; CNM)	HACD1	Donner, 2023	15648	0.02%	
Cystinuria Type I-A (SLC3A1 p.S698G)	SLC3A1	Donner, 2023	15648	0.02%	
Hemophilia A (German Shepherd Dog; F8 p.C548Y)	F8	Donner, 2023	15648	0.02%	
Hereditary Nasal Parakeratosis (Labrador Retriever; HNPk)	SUV39H2	Donner, 2023	15648	0.02%	
Neuronal Ceroid Lipofuscinosis 5 (Border Collie; NCL5)	CLN5	Donner, 2023	15648	0.02%	
Primary Lens Luxation (PLL)	ADAMTS17	Donner, 2023	15648	0.02%	
Progressive Retinal Atrophy (Swedish Vallhund; MERTK-related)	MERTK	Donner, 2023	15648	0.02%	
Mutation reported at very low frequency (Donner 2023):					
Musladin-Lueke syndrome (MLS)	ADAMTSL2	Donner, 2023	15637	>0.01%	
Acute Respiratory Distress Syndrome (Dalmatian; ARDS)	ANLN	Donner, 2023	15644	>0.01%	
Myeloperoxidase Deficiency (Italian Hound)	MPO	Donner, 2023	15645	>0.01%	
Congenital Myasthenic Syndrome (Jack Russell Terrier; CMS)	CHRNE	Donner, 2023	15647	>0.01%	
Pyruvate Kinase (PK) Deficiency (West Highland White Terrier)	PKLR	Donner, 2023	15647	>0.01%	
Spongy Degeneration with Cerebellar Ataxia (Belgian Malinois; SDCA2)	ATP1B2	Donner, 2023	15647	>0.01%	
Chondrodysplasia, Disproportionate Short-limbed (Norwegian Elkhound)	ITGA10	Donner, 2023	15648	>0.01%	

Early-Onset Progressive Polyneuropathy (Alaskan Malamute)	NDRG1	Donner, 2023	15648	>0.01%
Hereditary Elliptocytosis	SPTB	Donner, 2023	15648	>0.01%
Hypocatalasia	CAT	Donner, 2023	15648	>0.01%
Intestinal Cobalamin Malabsorption (Border Collie)	CUBN	Donner, 2023	15648	>0.01%
Neuroaxonal Dystrophy (Rottweiler; VPS11-related)	VSP11	Donner, 2023	15648	>0.01%
Sensory Neuropathy (Border Collie)	FAM134B	Donner, 2023	15648	>0.01%
Spongy Degeneration with Cerebellar Ataxia (Belgian Malinois; SDCA1)	KCNJ10	Donner, 2023	15648	>0.01%