

Miniature American Shepherd



[Labgenvet](#)

[Donner, 2018](#)

[Donner, 2023](#)

Disease	Gene	Reference	# tests	M/N	
MDR1 (Multidrug Resistance 1) Medication Sensitivity	ABCB1	Donner, 2023	1476	21.0%	DOMINANT
Progressive Rod-Cone Degeneration (prcd-PRA)	PRCD	Donner, 2023	1474	17.7%	
Degenerative Myelopathy (DM)	SOD1	Donner, 2023	1476	7.1%	
Dilated Cardiomyopathy risk factor (PDK4-related)	PDK4	Donner, 2023	1476	6.0%	DOMINANT
Chondrodystrophy and Intervertebral Disc Disease Risk (CDDY)	FGF4	Donner, 2023	1471	3.1%	DOMINANT
Bardet-Biedl syndrome 2, Retinal Atrophy (Shetland Sheepdog)	BBS2	Donner, 2023	1476	2.7%	
Cone-Rod Dystrophy (cord1-PRA/crd4)	RPGRIP1	Donner, 2023	1472	1.9%	
Collie Eye Anomaly (CEA)	NHEJ1	Donner, 2023	1476	1.1%	
Canine Multifocal Retinopathy 1 (Mastiff breeds; CMR1)	BEST1	Donner, 2023	1476	0.94%	
Hyperuricosuria (HUU)	SLC2A9	Donner, 2023	1476	0.61%	
Von Willebrand's Disease, Type 1 (vWD 1)	VWF	Donner, 2023	1476	0.27%	
Dilated Cardiomyopathy risk factor (TTN-related)	TTN	Donner, 2023	1476	0.14%	DOMINANT
Intestinal Cobalamin Malabsorption (Border Collie)	CUBN	Donner, 2023	1476	0.068%	
Primary Lens Luxation (PLL)	ADAMTS17	Donner, 2023	1476	0.068%	
Progressive Retinal Atrophy (Giant Schnauzer)	NECAP1	Donner, 2023	1476	0.068%	