

Laboratory Report

Laboratory #:	169164	Call Name:	Rolex
Order #:	101368	Registered Name:	-
Ordered By:	David Miller	Breed:	French Bulldog
Ordered:	Feb. 24, 2021	Sex:	Male
Received:	March 5, 2021	DOB:	June 2020
Reported:	March 13, 2021	Registration #:	NP60802405
		Microchip #:	0149

Results:

Disease	Gene	Genotype	Interpretation
Degenerative Myelopathy	<i>SOD1</i>	WT/M	Carrier
Hereditary Cataracts	<i>HSF4</i>	WT/WT	Normal (clear)
Hyperuricosuria	<i>SLC2A9</i>	WT/WT	Normal (clear)
Multifocal Retinopathy 1	<i>BEST1</i>	WT/WT	Normal (clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy 4	<i>RPGRIP1</i>	WT/WT	Normal (clear)

WT, wild type (normal); M, mutant; Y, Y chromosome (male)

Interpretation:

Molecular genetic analysis was performed for five specific mutations reported to be associated with disease in dogs. We identified two normal copies of the DNA sequences in four of the mutations tested. Thus, this dog is not at an increased risk for the diseases associated with these four mutations. However, we identified one normal copy and one mutant copy of the DNA sequences for *SOD1*. Thus, this dog is a carrier of Degenerative Myelopathy.

Recommendations:

Degenerative Myelopathy is inherited in an autosomal recessive fashion. Based on this, and the fact that this dog showed a mutation in one copy of the *SOD1* gene, this dog is a carrier of this disease. Although dogs that carry only one copy of this mutation will not be clinically affected, if bred with another carrier, the pairing could produce affected offspring. To avoid producing affected offspring, this dog should be bred with dogs that are normal (WT/WT) for this gene. Dogs related to this dog have an increased risk to be affected by or carry the mutated gene. Additional testing for this mutation is indicated for related dogs.

Paw Print Genetics[®] has genetic counseling available to you at no additional charge to answer any questions about these test results, their implications and potential outcomes in breeding this dog.