

DEGENERATIVE MYELOPATHY (SOD1)

REPORT NO.: ZO2020/1089/0721/01

Client Name: Nicole Gerstenberg
 Kennel Name:
 Client Address: 27 Barry Street
 Hout Bay WC 7806
 South Africa
 Client Tel No.: 082 218 6664



Canine Name: TauTonga Bijongo
 Breed: Rhodesian Ridgeback
 Microchip No.: 953 010 003 500 930
 Genetic Test: **DEGENERATIVE MYELOPATHY (SOD1)**
 Result: CLEAR
 Registration No.: ZA006387B19

DEGENERATIVE MYELOPATHY (SOD1)

A late onset degenerative neurological disease of the spinal cord that is prevalent in many canine breeds. As the spinal cord degenerates, the canine will display clinical symptoms such as ataxia in the pelvic limbs.

The genetic test detects the single nucleotide mutation c.118G>A, in the SOD1 gene, that encodes the superoxide dismutase 1 protein. A mutation in the SOD1 gene causes a malfunction in the protein, which results in an accumulation of toxic aggregates.

This is an autosomal recessive genetically inherited disease that requires two mutant copies of the SOD1 gene to cause DM.

Awano et al 2009. GWAS analysis reveals a SOD1 mutation in canine degenerative myelopathy that resembles amyotrophic lateral sclerosis. PNAS 106(8), pp2794-2799.

Sample Type: Whole Blood (EDTA)
 Extraction Method: DNA Extraction
 Test Type: Sanger Sequencing

BREEDING IMPLICATIONS

		MATERNAL CANDIDATE		
		CLEAR	CARRIER	AFFECTED
PATERNAL CANDIDATE	CLEAR	ALL CLEAR	50% CLEAR 50% CARRIER	ALL CARRIER
	CARRIER	50% CLEAR 50% CARRIER	25% CLEAR 50% CARRIER 25% AFFECTED	50% CARRIER 50% AFFECTED
	AFFECTED	ALL CARRIER	50% CARRIER 50% AFFECTED	ALL AFFECTED

Disclaimer: This report does not disregard the existence of any unknown or rare variant of SOD1 gene that may cause DM.



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