

## MELANOPHILLIN (MLPH) LOCUS D

REPORT NO.: SA2019/67349/0114/02

Client Name: NICOLE GERSTENBERG  
 Kennel Name:  
 Client Address: 27 BARRY STREET  
 HOUT BAY  
 7806  
 Client Tel No.: 082 218 6664



Canine Name: GLENAHOLM SHAKILA OF TAUTONGA  
 Breed: RHODESIAN RIDGEBACK  
 Microchip No.: 985111001210090 Registration No.:  
 Genetic Test: MELANOPHILLIN (MLPH) LOCUS D  
 Result: DD

### DILUTION GENE/ D-LOCUS:

Melanophillin (MLPH) aka D Locus is required to transport and position cells containing melanin. Melanophillin is encoded by the MLPH gene. The causative mutation in the MLPH gene or D locus reduces the distribution of eumelanin and pheomelanin resulting in a dilute phenotype.

The test detects the absence or presence of the substitution mutation c.-22G>A in the MLPH gene. "D" is non-dilute and will have an intense colour. "d" is recessive, and "dd" is required to dilute colour, which gives rise to blue (BBdd/Bbdd), Isabella/lilac (bbdd) or champagne (eedd).

Drögemüller et al 2007. A noncoding melanophillin gene (MLPH) SNP at the splice donor of exon 1 represents a candidate causal mutation for coat color dilution in dogs. Journal of Heredity 98(5), p468-73.

SAMPLE TYPE: EDTA BLOOD AMPULE  
 EXTRACTION METHOD: DNA EXTRACTION  
 TEST TYPE: SANGER SEQUENCE DETECTION

### BREEDING IMPLICATIONS

		MATERNAL CANDIDATE						
		D	D	D	d	d	d	
PATERNAL CANDIDATE	D	D	DD	DD	DD	Dd	Dd	Dd
	D	d	All non-dilute	All non-dilute	All non-dilute			
	d	D	DD	Dd	DD	Dd	Dd	dd
	d	d	All non-dilute	Non-dilute	Dilute	Non-dilute	Dilute	
	d	D	Dd	Dd	Dd	dd	dd	dd
	d	d	All non-dilute	Non-dilute	Dilute	All Dilute		

NOTE: The final coat colour of a canine is dependent on the interaction between multiple colour loci.

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



DISCLAIMER: IT IS THE SENDER'S RESPONSIBILITY TO ENSURE THE CORRECTNESS OF INFORMATION ACCOMPANYING SAMPLE(S). INQABA BIOTEC™ WARRANTS THE TESTS TO BE ACCURATE FOR THE SAMPLE(S) OBTAINED FROM THE INDIVIDUALS IDENTIFIED IN THIS REPORT. IN NO EVENT SHALL INQABA BIOTEC™ BE HELD LIABLE FOR UNINTENDED, SUBSTANTIAL OR SECONDARY DAMAGES OF ANY KIND.