



DNA ANALYSIS PROTOCOL FOR DETECTION OF HEREDITARY DISEASES

Protocol No. D1905001513

Customer: YVES AEMMER Sample type: buccal brush Date of sampling: 29.03.2019
75 RUE DE BETSCHDORF RD 344 Date of birth: 16.05.2017 Date of receipt: 13.05.2019
ANCIENNE MF ERZLACH Sex: F Date of analysis: 21.05.2019

The identity of the animal has been verified. Sample collected by vet: GOBIER LUDWIG, veterinary register no: 20978

Breed/Name	Tattoo or RFID id Pedigree number	Laboratory code	Type of analysis	Result
Miniature American Shepherd / NEW GAME DU BOIS DES TERNES	250269606911137	190513/T0813	HSF4/HC	N/N Non-affected
	1369/342			

The results of analysis are stored in a database under the lab code 190513/T0813.

Hints:

HSF4 (HC) – Hereditary cataract – deletion/insertion 1 bp in exon 9 of HSF4-gene (Heat shock factor protein 4).
HSF4/HC N/N – NON-AFFECTED (NORMAL), Both genes, inherited from both male and female are unaffected.
HSF4/HC N/A – CARRIER, confirmed heterozygous N/A genotype. Mutation can be transmitted to offspring.
HSF4/HC A/A – AFFECTED by the disease.

The HC disorder in Australian Shepherds has an autosomal dominant mode of inheritance, however with incomplete penetrance, the disease may not develop in every carrier of this deletion. The probability that the binocular HC develops in individuals with one copy of deletion (carriers) is approximately 17 times higher than in dogs clear of the deletion mutation (Mellersh et al. 2009).

Notice: This protocol applies exclusively to the sample and the data that were supplied by the submitter. DNA analysis concerns only the above-mentioned disease. No information regarding the customer as well as the purpose and results of the analysis will be provided to third parties.

In Bratislava 21.05.2019

Ing. Marcela Bieliková, PhD.