

REFERENCE NO.: 2024 - 063697/01

OWNER:

HANNA BOLHUIS
MEENTEWEG 13
NL-7971 RZ HAVELTE
NETHERLANDS

NAME/LABEL:

RUSTIC CHARMS ONE UNIQUE GUY FLOYD

SPECIES: DOG

BREED: MINIATURE AMERICAN SHEPHERD

SEX: MALE

MICROCHIP NO.: 985141006029279

TATOO NO.: NOT PROVIDED

PEDIGREE NO.: G-0-3306588

GENETIC REPORT

SAMPLE: BUCCAL SWAB

SAMPLE TAKEN BY: OWNER

REQUESTED TEST: NEUROAXONAL DYSTROPHY (NAD) - MINIATURE AMERICAN SHEPHERD

RESULT: CLEAR (WT/WT)

COMMENT :

The test examines the presence of RNF170 gene mutation (c.367delG) described as the cause of Neuroaxonal dystrophy (NAD) in Miniature American Shepherd. The disease is characterized by the presence of large, swollen axons and tissue changes indicative of neuronal degeneration and secondary gliosis throughout the central nervous system. RNF170 gene mutation is inherited as an autosomal recessive trait.

Regarding to the presence of tested mutation animals are classified in three groups:

- Clear (wt/wt) - mutation is not present, normal genotype
- Carrier (mut/wt) - one of two alleles carries tested mutation, disease is not clinically manifested
- Affected (mut/mut) - both alleles carry tested mutation, disease is clinically manifested

For each group different breeding strategies should be followed. Breeding of affected and carrier animals should be avoided. If particularly valuable animal is classified as affected, it should be bred only with clear animal. In such case, all first generation siblings will be carriers. If a carrier is bred with clear animal, 50% of siblings are expected to be clear. In case two carriers are bred, 25% of siblings are expected to be clear and 50% are expected to be carriers. However, 25% of siblings are expected to be affected, therefore such breeding practice is discouraged.

AUTHORIZED SIGNATURE:

MARIBOR, 24.06.2024



Results are valid for laboratory analysed samples only. Accuracy of the data about animal identity is the sole responsibility of the customer/owner. Laboratory is not responsible for false results which arise due to inaccurate animal identity data, false sample labels etc. To the extent the law allows, the maximal compensation for potential false result is limited to the invoiced amount. With the test it is not possible to rule out the presence of other genetic changes which might affect the development of the disease. Testing is performed according to the latest scientific knowledge.