

REFERENCE NO.: 2019 - 27050

OWNER:

SJÖLUND INGER
SCHULWEG 16
CH-2562 PORT
SWITZERLAND

NAME/LABEL:

HECTOR VOM SEEHAIN
SPECIES: DOG
BREED: COLLIE ROUGH
SEX: MALE
MICROCHIP NO.: 756098000041519
TATOO NO.: NOT PROVIDED
PEDIGREE NO.: NOT PROVIDED

GENETIC REPORT

SAMPLE: BLOOD

SAMPLE TAKEN BY: UTA VON BODUNGEN, DVM

REQUESTED TEST: MULTI DRUG RESISTANCE (IVERMECTIN SENSITIVITY, MDR1)

RESULT: CARRIER

COMMENT :

The test examines presence or absence of MDR1/ABCB1 gene mutation (c.295_298del) described as the cause of multi drug resistance (MDR) in several dog breeds. The condition is characterized by increased susceptibility to neurotoxic side effects of several drugs including Ivermectin. MDR1 gene defect 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, 18.06.2019