

## EVG molekularna diagnostika d.o.o.

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**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:** COLLIE EYE ANOMALY (CEA)

**RESULT:** CARRIER

## **COMMENT:**

The test examines presence or absence of NHEJ1 gene mutation (c.588+462\_588+8260del7799bp) described as the cause for collie eye anomaly (CEA) in several dog breeds. The disease is characterized by different level of impairment of retina and choroid sclera that occurs during development of the eye. Collie eye anomaly 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:** 

Molekularna diagnostika
EVG doo Taborska ulica & SI-2000 Maribor

MARIBOR, 18.06.2019

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.