EVG molekularna diagnostika d.o.o.

Molecular diagnostics
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CLAN ABBY DANGER ZONE
SPECIES: DOG
BREED: BORDER COLLIE

## NAME/LABEL: <br> NAME/LABEL:

CLAN ABBY DANGER ZONE
SPECIES: DOG
BREED: BORDER COLLIE
SEX: MALE
MICROCHIP NO.: 953010001322295
TATOO NO.: NOT PROVIDED
PEDIGREE NO.: ANKC 3100347128

## GENETIC REPORT

## SAMPLE: BUCCALSWAB

SAMPLE TAKEN BY: OWNER

## REQUESTED TEST: GONIODYSGENESIS AND GLAUCOMA (GG)

## RESULT: <br> CLEAR

## COMMENT:

The test examines presence or absence of OLFML3 gene mutation (c.590G>A) described as the cause of goniodysgenesis and glaucoma (GG) in Border Collie. The disease is characterized by developmental abnormality of eye ligaments that interfere with the flow of the eye fluid and lead to an increased eye pressure and consequently blindness. OLFML3 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.


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 folse results which arise due to inaccurate animal identity data, folse sample labels etc. To the extent the law allows, the maximal compensotion for potential false result is limited to the invoiced omount. With the test it is not possible to rule out the presence of other genetic changes which might offect the development of the disease. Testing is performed according to the latest scientific knowledge.

