

EVG molekularna diagnostika d.o.o.

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REFERENCE NO.: 2018 - 20302

OWNER:

JENNIFER ZIESERL ÜBERSBACH 199 AT-8280 ÜBERSBACH

AUSTRIA

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:

**BUCCAL SWAB** 

SAMPLE TAKEN BY:

OWNER

REQUESTED TEST:

MALIGNANT HYPERTHERMIA (MH)

RESULT:

CLEAR

## COMMENT:

The test examines presence or absence of RYR1 gene mutation (c.1640T>C) described as the cause of malignant hyperthermia (MH) in many dog breeds. The disease is a pharmacogenetic disorder of skeletal muscle elicited by exposure to volatile anaesthetics and depolarizing muscle relaxants. Malignant hyperthermia is inherited as an autosomal dominant trait.

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

- Clear (wt/wt) mutation is not present, normal genotype
- Single affected (mut/wt) one of two alleles carries a mutation, disease is clinically manifested
- Double affected (mut/mut) both alleles carry mutations, disease is clinically manifested

Because of autosomal dominant mode of inheritance the disease is clinically manifested in all animals that carry a mutation (one or both affected alleles). When double positive animal is bred with clear animal all siblings will be single affected with clinical manifestation of the disease. When single positive and clear animals are bred 50% of siblings will be clear and 50% will be single affected. With the aim of disease eradication and prevention of possible animal suffering it is advised to avoid breeding of double affected and single affected animals.

**AUTHORIZED, SIGNATURE:** 

MARIBOR, 17.07.2018

EVENESTIFE TO Paid JOI 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.