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REFERENCE NO.: 2018 - 20302
OWNER:
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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