

**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:** MULTI DRUG RESISTANCE (IVERMECTIN SENSITIVITY, MDR1)

**RESULT:** CLEAR

**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, 17.07.2018



EVG  
Molekularna diagnostika

EVG d.o.o. Taborska ulica 8 SI-2000 Maribor

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.