

**REFERENCE NO.:** 2020 - 31069**OWNER:**MARIE RAYNAUD & JEAN-MARC DUGAY SARL  
BUSYLITTLEBEE  
LA MULOCHERE\_  
FR-53270 TORCÉ-VIVIERS-EN-CHARNIE  
FRANCE**NAME/LABEL:**

POWER AND GLORY DU CHEMIN DES KORRIGANS

**SPECIES:** DOG**BREED:** AUSTRALIAN SHEPHERD**SEX:** MALE**MICROCHIP NO.:** 250268743111366**TATOO NO.:** NOT PROVIDED**PEDIGREE NO.:** LOF 111204

## GENETIC REPORT

**SAMPLE:** BUCCAL SWAB**SAMPLE TAKEN BY:** SYLVAIN BAUDRY, DVM**REQUESTED TEST:** MULTI DRUG RESISTANCE (IVERMECTIN SENSITIVITY, MDR1)**RESULT:** CLEAR (WT/WT)**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, 05.02.2020