

LISA GRASER

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Sent: Friday, November 09, 2012 11:55
Subject: MDR1 Genotyping Results for (Iceman) CH Vintas's Iceman of Blue Heaven

**MDR1 GENOTYPING RESULTS**

11/9/2012 9:55:00 AM
MDR1 - 29384

Lisa Graser
Marshall, WI

Submission Type: Brush

Dog Name: (Iceman) CH Vintas's Iceman of Blue Heaven

Dog Breed: Shetland Sheepdog

Test Result: Normal/Normal

Explanation of test results**Normal/Normal**

These dogs do not carry the mutation, and will not pass on the mutation to their offspring. These dogs would not be expected to experience unexpected adverse drug reactions to normal doses of ivermectin, loperamide (Imodium®), and some anticancer drugs.

Mutant/Mutant

These dogs carry the mutation and can not pass on a normal gene to their offspring. These dogs would be expected to experience toxicity after normal doses of loperamide (Imodium®), some anticancer drugs, and high doses of ivermectin (greater than 50 micrograms per kilogram).

Mutant/Normal

These dogs carry the mutation and may pass on the mutant gene to their offspring. These dogs may experience toxicity after normal doses of loperamide (Imodium®), some anticancer drugs, and high doses of ivermectin (greater than 50 micrograms per kilogram).

A current list of problem drugs for dogs with the MDR1 mutation may be found at this web address:

<http://ww! w.vetmed .wsu.edu/VCPL>

11/12/2012