

**MDR1 Sensitivity - Multi Drug Resistant Gene**

If you have a foster who will need large doses of Ivermectin, please discuss testing for this gene first:

<http://www.vetmed.wsu.edu/depts-vcpl/drugs.aspx>

This link has a list of drugs, including ACE, Immodium, Erythromycin, and Butorphanol and the dog breeds that are most likely to have this mutation.

**Breeds affected by the MDR1 mutation  
(frequency %)**

<b>Breed</b>	<b>Approximate Frequency</b>
Australian Shepherd	50%
Australian Shepherd, Mini	50%
Border Collie	< 5%
Collie	70 %
English Shepherd	15 %
German Shepherd	10 %
Herding Breed Cross	10 %
Long-haired Whippet	65 %
McNab	30 %
Mixed Breed	5 %
Old English Sheepdog	5 %
Shetland Sheepdog	15 %
Silken Windhound	30 %