

Canine Genetic Health Certificate™

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|-------------------------|-----------------------------|--------------------------|-----------------|
| Call Name: | Nutmeg | Laboratory #: | 113782 |
| Registered Name: | KissMe Sugar And Spice | Registration #: | DN46755010 |
| Breed: | Miniature American Shepherd | Microchip #: | 985112010183608 |
| Sex: | Female | Certificate Date: | Jan. 3, 2019 |
| DOB: | July 2016 | | |

This canine's DNA showed the following genotype(s):

| Disease | Gene | Genotype | Interpretation |
|--|---------------|----------|----------------|
| Collie Eye Anomaly | <i>NHEJ1</i> | WT/WT | Normal (clear) |
| Cone Degeneration | <i>CNGB3</i> | WT/WT | Normal (clear) |
| Degenerative Myelopathy | <i>SOD1</i> | WT/WT | Normal (clear) |
| Hereditary Cataracts (Australian Shepherd Type) | <i>HSF4</i> | WT/WT | Normal (clear) |
| Hyperuricosuria | <i>SLC2A9</i> | WT/WT | Normal (clear) |
| Intestinal Cobalamin Malabsorption (Australian Shepherd Type) | <i>AMN</i> | WT/WT | Normal (clear) |
| Multidrug Resistance 1 | <i>ABCB1</i> | WT/WT | Normal (clear) |
| Multifocal Retinopathy 1 | <i>BEST1</i> | WT/WT | Normal (clear) |
| Neuronal Ceroid Lipofuscinosis 6 | <i>CLN6</i> | WT/WT | Normal (clear) |
| Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration | <i>PRCD</i> | WT/WT | Normal (clear) |

WT, wild type (normal); M, mutant; Y, Y chromosome (male)



Helen F Smith, PhD
Assistant Laboratory Director



Christina J Ramirez, PhD, DVM, DACVP
Medical Director

Paw Print Genetics® performed the tests listed on this dog. See the Laboratory Report for interpretation and recommendations based on these findings. The genes/diseases reported here were selected by the client. Normal results do not exclude inherited mutations not tested in these or other genes that may cause medical problems or may be passed on to offspring. These tests were developed and their performance determined by Paw Print Genetics. This laboratory has established and verified the tests' accuracy and precision. Because all tests performed are DNA-based, rare genomic variations may interfere with the performance of some tests producing false results. If you think these results are in error, please contact the laboratory immediately for further evaluation. In the event of a valid dispute of results claim, Paw Print Genetics will do its best to resolve such a claim to the customer's satisfaction. If no resolution is possible after investigation by Paw Print Genetics with the cooperation of the customer, the extent of the customer's sole remedy is a refund of the fee paid. In no event shall Paw Print Genetics be liable for indirect, consequential or incidental damages of any kind. Any claim must be asserted within 60 days of the report of the test results. Genetic counseling is available at Paw Print Genetics.