

## Laboratory Report

**Laboratory #:** 12245  
**Order #:** 4391  
**Ordered By:** Gaylin Gilliver  
**Ordered:** June 11, 2015  
**Received:** June 22, 2015  
**Reported:** June 29, 2015

**Call Name:** Tango  
**Registered Name:** Circle S Tango at Granite Hill  
**Breed:** Labrador Retriever  
**Sex:** Female  
**DOB:** July 2013  
**Registration #:** SR78584409  
**Microchip #:** 0A02140336

### Results:

Disease	Gene	Genotype	Interpretation
Centronuclear myopathy	PTPLA	WT/WT	Normal
Cystinuria (Labrador Retriever type)	SLC3A1	WT/WT	Normal
Degenerative myelopathy	SOD1	WT/WT	Normal
Elliptocytosis	SPTB	WT/WT	Normal
Exercise-induced collapse	DNM1	WT/M	Carrier
Hereditary nasal parakeratosis	SUV39H2	WT/WT	Normal
Hyperuricosuria	SLC2A9	WT/WT	Normal
Myotubular myopathy 1	MTM1	WT/WT	Normal
Narcolepsy (Labrador Retriever type)	HCRTR2	WT/WT	Normal
Progressive retinal atrophy, Cone-rod dystrophy 4	RPGRIP1	WT/WT	Normal
Progressive retinal atrophy, Golden Retriever 2	TTC8	WT/WT	Normal
Progressive retinal atrophy, Progressive rod-cone degeneration	PRCD	WT/WT	Normal
Pyruvate kinase deficiency (Labrador Retriever type)	PKLR	WT/WT	Normal
Retinal dysplasia/Oculoskeletal dysplasia 1	COL9A3	WT/WT	Normal
Skeletal dysplasia 2	COL11A2	WT/WT	Normal

WT, wild type (normal); M, mutant

### Interpretation:

Molecular genetic analysis was performed for specific mutations of 15 genes reported to be associated with disease in dogs. We identified two normal copies of the DNA sequences in 14 of the genes tested. Thus, this dog is not at an increased risk for any of the diseases associated with these 14 genes. However, we identified one normal copy and one mutant copy of the DNA sequences for *DNM1*. Thus, this dog is a carrier of exercise-induced collapse.

### Recommendations:

Exercise-induced collapse is inherited in an autosomal recessive fashion. Based on this, and the fact that this dog showed a mutation in one copy of the *DNM1* gene, this dog is a carrier of this disease. Although this dog is not clinically affected by this mutation, if bred with another carrier, the pairing could produce affected offspring. To avoid producing affected offspring, this dog should be bred with dogs that are normal (WT/WT) for this gene. Dogs related to this dog have an increased risk to be affected by or carry the mutated gene. Additional testing for this mutation is indicated for related dogs.

Paw Print Genetics™ has genetic counseling available to you at no additional charge to answer any questions about these test results, their implications and potential outcomes in breeding this dog.



**Christina J Ramirez, PhD, DVM, DACVP**  
 Medical Director



**Casey R Carl, DVM**  
 Associate Medical Director

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.