



1/5/2014

MyDogDNA PASS

8700 2321 9108 718

Chanel do BR Terra de Vera Cruz, Terrier Brasileiro

**Registered name:** Chanel do BR Terra de Vera Cruz

**Nickname:** Chanel

**Registration ID:** RG/PRG/07/05013

**Microchip:** 900118000192401

**Breed:** Terrier Brasileiro

**Gender:** Female

**Owner:** Mauro Sérgio Carvalho Prizibela

**Country:** Brazil

**Testing date:** 30/4/2014



**DNA identification profile:**  
Identified with standard ISAG markers

### Test results - Known disorders in the breed

| Disorder  | Type                | Mode of inheritance | Result  |
|---|---------------------|---------------------|---------|
| Mucopolysaccharidosis Type VII (MPSVII); mutation originally found in Brazilian Terrier | Metabolic disorders | Autosomal Recessive | Carrier |
| Malignant Hyperthermia (MH)   | Pharmacogenetics    | Autosomal Dominant  | Clear   |

### Test results - New potential disorders in the breed

| Disorder   | Type                    | Mode of inheritance | Result   |
|--|-------------------------|---------------------|----------|
| Dilated Cardiomyopathy; mutation originally found in Doberman Pinscher (USA) | Cardiological disorders | Autosomal Dominant  | Affected |
| Canine Multifocal Retinopathy 1 (cmr1), Mastiff-related breeds mutation      | Eye disorders           | Autosomal Recessive | Clear    |

*When obtaining a carrier or affected test result, we recommend that you contact your veterinarian for more detailed information on the condition and possible treatment.*

*On behalf of Genoscooper Laboratories,*

  
SIGNATURE

Jonas Donner, PhD, Head of Research and Development at Genoscooper Laboratories



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## Test results - Traits

| Trait   | Genotype         | Description  |
|---|------------------|--|
| Colour Locus A  | at/at            | The dog is homozygous for at-allele.   |
| Colour Locus B  | B/bs   <br>bs/bd | The dog is heterozygous for bs allele.   |
| Colour Locus E  | E/E              | The dog is homozygous for E allele.  |
| Colour Locus H  | h/h              | The dog is homozygous for h allele.  |
| Colour Locus K  | ky/ky            | The dog is homozygous for ky allele.   |
| Furnishings / Improper Coat in Portuguese Water Dogs (marker test)  | GG/CC            | The dog is not genetically likely to express furnishings.  |
| Body mass, insulin-like growth factor 1 (IGF1) gene variant   | A/A              | The dog is homozygous for the genetic variant typically associated with small body mass. This genotype is common e.g. in Yorkshire Terrier, Chihuahua and Chinese Crested Dogs.  |
| Coat length   | G/G              | The dog carries two copies of the genetic variant typically associated with a short-haired coat.   |
| Curly coat  | C/C              | The dog is genetically non-curly.  |
| Ear erectness (pricked ears versus floppy ears), variant chr10:11072007                                     | T/T              | The dog is homozygous and carries two copies of a genetic variant typically associated with pricked ears. This genotype is common in breeds like Finnish Spitz, German Shepherd, Samoyed, Terriers and in Collie-related breeds. |
| Natural Bobtail (T-box mutation)  | C/C              | The dog does not carry any copy of the bobtail mutation. It therefore likely has a long-tailed phenotype.  |
| Snout/skull length (shortened head versus elongated head), bone morphogenetic protein 3 (BMP3) gene variant | C/C              | Your dog is homozygous for the genetic variant typically found in breeds with an elongated head (e.g. Saluki, Collie, Irish Wolfhound).  |
| Tiny size, insulin-like growth factor 1 receptor (IGF1R) gene variant                                       | G/G              | Your dog is homozygous for a genetic variant typically found in larger-sized breeds (height at the withers > 25.4 cm (10 inches)).   |

On behalf of Genoscooper Laboratories,

  
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at Genoscooper Laboratories



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## Test results - Additional disorders found in other breeds - page 1/6



### Blood disorders

| Disorder  | Mode of inheritance | Result |
|---|---------------------|--------|
| Bleeding disorder due to P2RY12 defect  | Autosomal Recessive | Clear  |
| Canine Cyclic Neutropenia (Gray Collie Syndrome)  | Autosomal Recessive | Clear  |
| Factor IX Deficiency or Haemophilia B, Gly379Glu mutation   | X-linked Recessive  | Clear  |
| Factor IX Deficiency or Haemophilia B; mutation originally found in Lhasa Apso                      | X-linked Recessive  | Clear  |
| Factor VII Deficiency   | Autosomal Recessive | Clear  |
| Factor VIII deficiency or Haemophilia A; mutation originally found in German Shepherd               | X-linked Recessive  | Clear  |
| Glanzmann Thrombasthenia (GT), Type I; mutation originally found in Pyrenean Mountain Dog           | Autosomal Recessive | Clear  |
| Glycogen Storage Disease VII or Hereditary Phosphofructokinase (PFK) Deficiency                     | Autosomal Recessive | Clear  |
| May-Hegglin Anomaly (MHA)   | Autosomal Dominant  | Clear  |
| Pyruvate Kinase Deficiency of Erythrocyte; mutation originally found in Beagle                      | Autosomal Recessive | Clear  |
| Pyruvate Kinase Deficiency of Erythrocyte; mutation originally found in Labrador Retriever          | Autosomal Recessive | Clear  |
| Pyruvate Kinase Deficiency of Erythrocyte; mutation originally found in Pug                         | Autosomal Recessive | Clear  |
| Pyruvate Kinase Deficiency of Erythrocyte; mutation originally found in West Highland White Terrier | Autosomal Recessive | Clear  |
| Trapped Neutrophil Syndrome (TNS)   | Autosomal Recessive | Clear  |



### Test results - Additional disorders found in other breeds - page 2/6



#### Endocrine disorders

| Disorder  | Mode of inheritance | Result |
|---|---------------------|--------|
| Hypothyroidism; mutation originally found in Tenterfield Terrier      | Autosomal Recessive | Clear  |
| Hypothyroidism; mutation originally found in Toy Fox- and Rat Terrier | Autosomal Recessive | Clear  |

#### Eye disorders

| Disorder   | Mode of inheritance                        | Result |
|--|--|--------|
| Achromatopsia or Cone Degeneration (CD); mutation originally found in German Shorthaired Pointer | Autosomal Recessive                        | Clear  |
| Autosomal Dominant Progressive Retinal Atrophy (ADPRA)   | Autosomal Dominant                         | Clear  |
| Canine Multifocal Retinopathy 2 (cmr2); mutation originally found in Coton de Tulear             | Autosomal Recessive                        | Clear  |
| Canine Multifocal Retinopathy 3 (cmr3); mutation originally found in Lapponian Herder            | Autosomal Recessive                        | Clear  |
| Cone-rod Dystrophy 1 (cord1-PRA)   | Autosomal Recessive                        | Clear  |
| Cone-rod dystrophy (crd SWD); mutation originally found in Standard Wire-haired Dachshund        | Autosomal Recessive                        | Clear  |
| Generalized Progressive Retinal Atrophy; mutation originally found in Schapendoes                | Autosomal Recessive                        | Clear  |
| Golden Retriever Progressive Retinal Atrophy 1 (GR_PRA 1)  | Autosomal Recessive                        | Clear  |
| Primary Hereditary Cataract (PHC); mutation originally found in Australian Shepherd              | Autosomal Dominant (Incomplete Penetrance) | Clear  |
| Primary Lens Luxation (PLL)  | Autosomal Recessive                        | Clear  |
| Primary Open Angle Glaucoma; mutation originally found in Beagle                                 | Autosomal Recessive                        | Clear  |
| Rod-Cone Dysplasia 1 (rcd1); mutation originally found in Irish Setter                           | Autosomal Recessive                        | Clear  |
| Rod-Cone Dysplasia 1a (rcd1a); mutation originally found in Sloughi                              | Autosomal Recessive                        | Clear  |
| Rod-Cone Dysplasia 3 (rcd3)  | Autosomal Recessive                        | Clear  |
| X-Linked Progressive Retinal Atrophy 1 (XLPR1)   | X-linked Recessive                         | Clear  |



### Test results - Additional disorders found in other breeds - page 3/6



#### Immunological disorders

| Disorder   | Mode of inheritance | Result |
|--|---------------------|--------|
| ARSCID (Autosomal Recessive Severe Combined Immunodeficiency)  | Autosomal Recessive | Clear  |
| C3 deficiency  | Autosomal Recessive | Clear  |
| X-linked Severe Combined Immunodeficiency (XSCID); mutation originally found in Basset Hound         | X-linked Recessive  | Clear  |
| X-linked Severe Combined Immunodeficiency (XSCID); mutation originally found in Cardigan Welsh Corgi | X-linked Recessive  | Clear  |

#### Kidney disorders

| Disorder   | Mode of inheritance | Result |
|--|---------------------|--------|
| Hyperuricosuria and Hyperuricemia (HUU) or Urolithiasis                  | Autosomal Recessive | Clear  |
| Polycystic Kidney Disease (PKD)  | Autosomal Dominant  | Clear  |
| Primary hyperoxaluria (PH); mutation originally found in Coton de Tulear | Autosomal Recessive | Clear  |
| X-linked Hereditary Nephropathy (XLHN)                                   | X-linked Recessive  | Clear  |

#### Metabolic disorders

| Disorder  | Mode of inheritance | Result |
|---|---------------------|--------|
| Glycogen Storage Disease, Type Ia (GSDIa)   | Autosomal Recessive | Clear  |
| Glycogen Storage Disease, type II or Pompe's disease                              | Autosomal Recessive | Clear  |
| Glycogen Storage Disease, type IIIa (GSDIIIa)                                     | Autosomal Recessive | Clear  |
| Hypocatalasia or Acatlasemia  | Autosomal Recessive | Clear  |
| Mucopolysaccharidosis Type IIIA (MPSIIIA); mutation originally found in Dachshund | Autosomal Recessive | Clear  |
| Mucopolysaccharidosis Type VI (MPSVI); mutation originally found in Poodle        | Autosomal Recessive | Clear  |
| Pyruvate Dehydrogenase Deficiency   | Autosomal Recessive | Clear  |

**Test results - Additional disorders found in other breeds - page 4/6****Muscular disorders**

| Disorder  | Mode of inheritance | Result |
|---|---------------------|--------|
| Cavalier King Charles Spaniel Muscular Dystrophy (CKCS-MD)                      | X-linked Recessive  | Clear  |
| Duchenne-like Muscular Dystrophy, Pembroke Welsh Corgi-type                     | X-linked Recessive  | Clear  |
| Muscular Dystrophy, Duchenne type or Golden Retriever Muscular Dystrophy (GRMD) | X-linked Recessive  | Clear  |
| Myotonia; mutation originally found in Miniature Schnauzer                      | Autosomal Recessive | Clear  |
| Myotubular Myopathy 1 or X-linked Myotubular Myopathy                           | X-linked Recessive  | Clear  |

**Neurological disorders**

| Disorder  | Mode of inheritance | Result |
|---|---------------------|--------|
| Benign Familial Juvenile Epilepsy or Remitting Focal Epilepsy                                   | Autosomal Recessive | Clear  |
| Cerebellar abiotrophy or neonatal cerebellar cortical degeneration (NCCD)                       | Autosomal Recessive | Clear  |
| Fetal-onset Neuroaxonal Dystrophy (FNAD)  | Autosomal Recessive | Clear  |
| L-2-Hydroxyglutaric aciduria (L2HGA); mutation 1 originally found in Staffordshire Bull Terrier | Autosomal Recessive | Clear  |
| L-2-Hydroxyglutaric aciduria (L2HGA); mutation 2 originally found in Staffordshire Bull Terrier | Autosomal Recessive | Clear  |
| L-2-hydroxyglutaric Aciduria (L2HGA), Yorkshire Terrier mutation                                | Autosomal Recessive | Clear  |
| Neonatal Encephalopathy with Seizures (NEWS)  | Autosomal Recessive | Clear  |
| Neuronal Ceroid Lipofuscinosis 1 (NCL1)   | Autosomal Recessive | Clear  |
| Neuronal Ceroid Lipofuscinosis 10 (NCL10)   | Autosomal Recessive | Clear  |
| Neuronal Ceroid Lipofuscinosis 2 (NCL2)   | Autosomal Recessive | Clear  |
| Neuronal Ceroid Lipofuscinosis 6 (NCL6)   | Autosomal Recessive | Clear  |
| Neuronal Ceroid Lipofuscinosis, type 12, mutation originally found in Tibetan terrier           | Autosomal Recessive | Clear  |
| Polyneuropathy; mutation originally found in Alaskan Malamute                                   | Autosomal Recessive | Clear  |
| Polyneuropathy; mutation originally found in Greyhound  | Autosomal Recessive | Clear  |
| Progressive early-onset cerebellar ataxia; mutation originally found in Finnish Hound           | Autosomal Recessive | Clear  |



### Test results - Additional disorders found in other breeds - page 5/6



#### Neuromuscular disorders

| Disorder   | Mode of inheritance | Result |
|--|---------------------|--------|
| Alpha Fucosidosis  | Autosomal Recessive | Clear  |
| Episodic falling (EF)  | Autosomal Recessive | Clear  |
| GM1 Gangliosidosis; mutation originally found in Alaskan Husky                                   | Autosomal Recessive | Clear  |
| GM1 Gangliosidosis; mutation originally found in Portuguese Water Dog                            | Autosomal Recessive | Clear  |
| GM1 Gangliosidosis; mutation originally found in Shiba Dog                                       | Autosomal Recessive | Clear  |
| GM2 Gangliosidosis; mutation originally found in Toy Poodle                                      | Autosomal Recessive | Clear  |
| Globoid Cell Leukodystrophy (GLD) or Krabbe's disease, Terrier mutation                          | Autosomal Recessive | Clear  |
| Globoid Cell Leukodystrophy (GLD) or Krabbe's disease; mutation originally found in Irish Setter | Autosomal Recessive | Clear  |
| Hyperekplexia or Startle Disease   | Autosomal Recessive | Clear  |

#### Skeletal disorders

| Disorder   | Mode of inheritance | Result |
|--|---------------------|--------|
| Chondrodysplasia (dwarfism); mutation originally found in Norwegian Elkhound and Karelian Bear Dog | Autosomal Recessive | Clear  |
| Cranio-mandibular Osteopathy (CMO)   | Autosomal Dominant  | Clear  |
| Osteogenesis imperfecta (OI) or Brittle Bone Disease; mutation originally found in Dachshund       | Autosomal Recessive | Clear  |
| Skeletal Dysplasia 2 (SD2)   | Autosomal Recessive | Clear  |



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## Test results - Additional disorders found in other breeds - page 6/6



### Skin disorders

| Disorder  | Mode of inheritance | Result |
|---|---------------------|--------|
| Ectodermal dysplasia or Skin Fragility Syndrome (ED-SFS)      | Autosomal Recessive | Clear  |
| Epidermolysis bullosa, dystrophic                             | Autosomal Recessive | Clear  |
| Epidermolytic Hyperkeratosis or Ichthyosis in Norfolk Terrier | Autosomal Recessive | Clear  |
| Lamellar Ichthyosis (LI)                                      | Autosomal Recessive | Clear  |
| Musladin-Lueke syndrome (MLS)                                 | Autosomal Recessive | Clear  |

### Other disorders

| Disorder   | Mode of inheritance | Result |
|--|---------------------|--------|
| Congenital Keratoconjunctivitis Sicca and Ichthyosiform Dermatitis (CKCSID) or Dry Eye Curly Coat Syndrome | Autosomal Recessive | Clear  |
| Gallbladder Mucocele Formation   | Autosomal Dominant  | Clear  |
| Narcolepsy; mutation originally found in Dobermann   | Autosomal Recessive | Clear  |
| Persistent Mullerian Duct Syndrome (PMDS), mutation originally found in Miniature Schnauzer                | Autosomal Recessive | Clear  |
| Primary Ciliary Dyskinesia (PCD)   | Autosomal Recessive | Clear  |

On behalf of Genoscooper Laboratories,

  
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## APPENDIX Explanation of the results of the tested disorders

### Autosomal recessive inheritance (ARI)

*Clear* - A dog carries no copies of the tested mutation and has no or reduced likelihood of developing and passing on the disease/condition.

*Carrier* - A dog carries one copy of the tested mutation. Carriers typically have a normal, healthy appearance but pass on the mutation to approximately 50% of their offspring.

*Affected* - A dog carries two copies of the tested mutation and is at high or increased risk of developing the disease/condition.

### Autosomal dominant inheritance (ADI)

*Clear* - A dog carries no copies of the tested mutation and has no or reduced likelihood of developing and passing on the disease/condition.

*Affected* - A dog carries one or two copies of the tested mutation and is at high or increased risk of developing the disease/condition.

### X-linked recessive inheritance (X-linked)

*Clear* - A dog carries no copies of the tested mutation and has no or reduced likelihood of developing and passing on the disease/condition.

*Carrier* - Female carriers typically have a normal, healthy appearance but carry one copy of the tested mutation on one of their X chromosomes. As males only have one X chromosome, there are no male carriers.

*Affected* - Affected female dogs carry two mutated copies of the tested mutation. Affected males carry one copy of the tested mutation on their single X chromosome. Affected dogs are at high or increased risk of developing the disease/condition.

Please note that the descriptions above are generalized based on typically observed inheritance patterns. When obtaining a carrier or affected test result, always refer to the corresponding online test documentation for more detailed information on the condition and any exceptions.

## Genoscooper Laboratories - Legal Notice

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