RAT & TAT

Coat colours

- A-locus (agouti)
- B-locus (coat colour brown)
- D-locus (dilution)
- E-locus (coat colours yellow, lemon, red, cream, apricot; MC1R-gene)
- EM-locus (melanistic mask allel)
- K-locus and K-locus brindle*
- S-lokus (piebald)*
- Sable* in English Cocker Spaniel

Coat length/structure

- Coat length (short- / longhaired)
- Curly
- Furnishing
- Improper coat in Portuguese Water Dog

DNA-profiles (markers according to ISAG):

- DNA-profile (identity)
- Parentage testing
- Breed analysis (list of breeds: www.laboklin.com)
- Likelihood ratio calculation

Our quality assurance programme: All procedures are accredited according to DIN/ISO 17025. In addition to a constant panel of internal quality controls all tests are regularly checked with external controls as well, thus producing highest possible standard of quality.

Topic overview

Hereditary disease

Coat Colors/ Coat Length

DNA-profiles
Markers according to ISAG

Quality assurance progamme
all procedures are accredited according to DIN/ISO 17025

* Test performed in a partner laboratory.

Sample material for all genetic tests:
1 ml EDTA blood or two dry buccal swabs for each animal. Cotton swabs for free are available on request.

LABOKLIN
LABORATORY FOR CLINICAL DIAGNOSTICS

Handed out directly from your vet

(stamp)

Service

This info-flyer together with further useful informations are available for downloads on www.laboklin.com/service/Animal Owner Information.

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LABOKLIN
LABORATORY FOR CLINICAL DIAGNOSTICS

RAT & TAT
Die moderne Informationsreihe von Ihrem Tierarzt und Laboklin

Genetics Dog

The name "LABOKLIN" stands for excellence in veterinary laboratory diagnostics and service. We provide the veterinary community with a wide array of high quality laboratory analysis since many years. Besides LABOKLIN provides genetic tests to veterinary professionals, breeders and animal owners. Our DNA testing covers a wide range of inherited diseases as well as analysis of genetically imprinted characteristics. Additionally, we offer DNA profiles, parentage analysis and breed classification.

Below please find an overview of the tests we offer especially for dogs. For further information do not hesitate to contact us. We continue to offer and develop new genetic tests to keep pace with the growing awareness of the risks associated with inherited diseases and the aim of many breeders, clubs, veterinary professionals and owners to control genetic disorders in various breeds. Please inform us if you do not find the desired test in the list below, contact details can be found on the back of this brochure.

Hereditary diseases

- Arrhythmogenic right ventricular cardiomyopathy (ARVC)* in Boxer
- Brachyuria (breeds upon request)
- Brittle bone disease (osteogenesis imperfecta) in Dachshund
- Canine leucocyte adhesion deficiency (CLAD) in Irish Setter, Irish Red and White Setter
- Collie eye anomaly (CEA)* in Australian Shepherd, Bearded Collie, Border Collie, Boykin Spaniel, Hokkaido, Lancashire Heeler, Longhaired Whippet, Nova Scotia Duck Tolling Retriever, Rough / Smooth Collie and Shetland Sheepdogs

- Congenital hypothyreosis (CGH) in Spanish Waterdog
- Congenital myopathy (CNM) in Labrador Retriever
- Congenital stationary night blindness (CSNB) in Briard
- Copper toxicosis in Bedlington Terrier
- Cystinuria in Landseer and Newfoundland
- Degenerative myelopathy (DM) (all breeds)
- Dilated cardiomyopathy (DCM)* in Doberman
- Dwarfism in Czechoslovakian Wolfdog, German Shepherd and Saarloos Wolfhound
- Dry eye curly coat syndrome (CCS) in Cavalier King Charles Spaniel
- Episodic falling (EF) in Cavalier King Charles Spaniel
- Exercise induced collapse (EIC) in Boykin Spaniel, Chesapeake Bay Retriever, Curly Coated Retriever, German Wirehaired Pointer, Labrador Retriever and Pembroke Welsh Corgi (exclusive licence Europe)
- Factor VII deficiency in Airedale Terrier, Alaskan Klee Kai, Beagle, Giant Schnauzer and Scottish Deerhound
- Familial nephropathy (FN)* in English Cocker Spaniel
- Familial nephropathy (FN) in English Springer Spaniel and Samoyed
- Fucosidosis in English Springer Spaniel
- Globoid cell leukodystrophy (Krabbe-disease) in Cairn Terrier and West Highland White Terrier
- Glycogen storage disease (GSDIIIa) in Curly Coated Retriever
- GM1-gangliosidosis in Huskies and Portuguese Water Dog
- Grey collie syndrome (canine cyclic neutropenia) in Collies
- Haemophilia A (factor VIII deficiency) in Bichon Havanese
- Haemophilia B (factor IX deficiency) in Rhodesian Ridgeback
- Hereditary cataract (HSF4) in Australian Shepherd and Waeller
- Hereditary nasal parakeratosis (HNPK)* in Labrador Retriever
- Hereditary necrotising myelopathy* in Dutch Kooiker
- Hereditary neuropathy in Alaskan Malamute and Greyhound
- Hyperuricosuria (SLC) (all breeds)
- Ichthyosis in Golden Retriever
- Junctional epidermolysis bullosa (JEB) in German Shorthaired Pointer
- Juvenile dilatative cardiomyopathy (JDCM)* in Portuguese Water Dog
- Juvenile renale dysplasia (JRD)* (breeds upon request)
- L-2-hydroxyglutaric aciduria (L-2-HGA) in Staffordshire Bull Terrier
- Malignant hyperthermia (MH) (all breeds)
- MDR1 gene defect* (Ivermectin sensitivity) in American White Shepherd, Australian Shepherd, Bobtail, Border Collie, Elo, German Sheperd, Longhaired Whippet, Mc Nab, Rough / Smooth Collie, Shetland Sheepdog, Silken Windhound and Waeller
- Mucopolysaccharidosis type VII (MPS) in German Shepherd
- Muscular dystrophy in Golden Retrievers (GRMD) and Cavalier King Charles Spaniel
- Musladin-Lueke-syndrome (MLS) in Beagle
- Myostatin-mutation ("bully"-gene) in Whippet
- Myotonia congenita in Miniature Schnauzer
- Narcolepsy in Doberman and Labrador Retriever
- Neonatal encephalopathy (NEWS) in Standard Poodle
- Neuronal ceroid lipofuscinosis (NCL) in Border Collie, American Bulldog, Dachshund, English Setter, Australian Shepherd and Tibet Terrier
- Phosphofructokinase-deficiency (PFKD) in American Cocker Spaniel, English Springer Spaniel, German Spaniel and Whippet
- Primary lens luxation (PLL) in Chinese Crested, Jack Russell Terrier, Jagdterrier, Lancashire Heeler, Miniature Bull Terrier, Parson Russel Terrier, Patterdale Terrier, Rat Terrier, Sealyham Terrier, Tenterfield Terrier, Tibetan Terrier, Toy Fox Terrier, Volpino Italiano, Welsh Terrier and Westfalia Terrier

- Progressive retinal atrophy (crd-PRA) in Standard Wirehaired Dachshund
- Progressive retinal atrophy (gr_PRA) in Golden Retriever
- Progressive retinal atrophy (rcd1-PRA) in Bull Mastiff, English Mastiff, Irish Setter, Sloughi and Welsh Corgi
- Progressive retinal atrophy (rcd2-PRA) in Collies
- Progressive retinal atrophy (rcd4-PRA) in Gordon Setter and Irish Setter
- Progressive retinal atrophy (prcd-PRA)* in American Cocker Spaniel, American Eskimo, Australian Cattle Dog, Australian Sheperd, Australian Stumpy Tail Cattle Dog, Chesapeake Bay Retriever, Chinese Crested, Cockapoo, Dwarf Poodle, English Cocker Spaniel, Entlebucher Mountain Dog, Finnish Lapphund, Golden Doodle, Golden Retriever, Kuvasz, Labradoodle, Labrador Retriever, Lapponian Herder, Markiesje, Norwegian Elkhound, Nova Scotia Duck Tolling Retriever, Portuguese Water Dog, Swedish Lapphund, Silky Terrier, Spanish Water Dog, Toy Poodle and Yorkshire Terrier
- Pug dog encephalitis (PDE) in Pug Dog
- Pyruvat dehydrogenase phosphatase 1 deficiency (PDP1) in Clumber-Spaniel and Sussex-Spaniel
- Pyruvate kinase deficiency (PK) in Basenji, Beagle, Labrador, Mops and West Highland White Terrier
- Retinal dysplasia (OSD)* in Labrador Retriever and Samoyed
- Startle disease in Irish Wolfhound
- Trapped neutrophil syndrome (TNS) in Border Collie

- Von Willebrand disease type 1 in Bernese Mountaindog, Coton de Tulear, Doberman, Drentsche Patrij, German Pinscher, Kerry Blue Terrier, Labradoodle, Manchester Terrier, Papillon, Pembroke Welsh Corgi, Poodles and Stabyhound (licence agreement for Europe)
- Von Willebrand disease type 2 in German Wirehaired Pointer and German Shorthaired Pointer
- Von Willebrand disease type 3 in Dutch Kooiker, Scotch Terrier and Shetland Shepdog
- X-linked severe combined immunodeficiency (X_SCID) in Basset and Welsh Corgi

Further tests upon request

Genetically imprinted characteristics

Often, the decision to buy a dog mainly depends on the look of the dog, which is characterised by coat colour and pattern, as well as coat structure like curly, rough, flat and long or short hair. Certain breeds are separated by their appearance, which makes these characteristics crucial features for breed standards. Therefore, genetic tests are important for various dog breeds.