

wildtype-allele. It does not carry the causal mutation for AE in the SLC39A4-gene.

Trait of inheritance: autosomal recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Turkish Van

Alpha-Mannosidosis (AMD) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Alpha-Mannosidosis in the LAMAN-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds:
Persian

Autoimmune lymphoproliferative Syndrome (ALPS) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for ALPS in the FASL-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: British Shorthair

Congenital myasthenic syndrom (CMS) - PCR

Result: Genotype N/N

Interpretation: The tested cat does not carry the mutation in the COLQ gene that is causative for the expression of the congenital myasthenic syndrom (CMS). The cat only passes the normal (wildtype) allele to its offspring.

This result is only valid for the Devon Rex and Sphynx breeds. Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Devon Rex, Sphynx

Cystinuria - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Cystinuria in the SLC7A9-gene.

Trait of inheritance: autosomal-recessive

Factor XI Deficiency - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the associated variant for Factor XI deficiency in the FXI-gene.

Trait of inheritance: autosomal recessive

A correlation between the mutation and symptoms of the disease was found in the following breed: Maine Coon

FXII deficiency (1321delC)- PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the associated variant for Factor XII deficiency in the FXII-gene.

Trait of inheritance: autosomal recessive

FXII deficiency (1631G>C)- PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the associated variant for Factor XII deficiency in the FXII-gene.

Trait of inheritance: autosomal recessive

Gangliosidosis (GM1) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for GM1-Gangliosidosis in the GBL1-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds:

Balinese, Javanese, Korat, Oriental Shorthair, Peterbald, Sevchellois, Siamese, Thai, Tonkinese

GM2-Gangliosidosis - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for GM2-Gangliosidosis in the HEXB-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breed:

Burmese

Gangliosidosis (GM2) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for GM2-Gangliosidosis in the HEXB-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breed:

Korat

Glycogen storage disease (GSDIV) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Glykogen storage disease Type IV in the GBE1-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds:
Norwegian forest cat and related breeds

Head Defect - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Burmese Head Defect.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breed:
Burmese

Hypertrophic cardiomyopathy (HCM1) Maine Coon - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Hypertrophic Cardiomyopathy in the MYBPC3-gene (A31P).

Trait of inheritance: autosomal-dominant

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds:
Maine Coon and related breeds

Hypertrophic Cardiomyopathy (HCM3) Ragdoll - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Hypertrophic Cardiomyopathy in the MYBPC3-gene (R820W).

Trait of inheritance: autosomal-dominant

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds:
Ragdoll and related breeds

Hypertrophic cardiomyopathy (HCM4) Sphynx - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causal mutation for HCM in the ALMS1-gene.

Trait of inheritance: autosomal dominant with variable penetrance

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Sphynx

Hypokalemia - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Hypokalemia in the WNK4-gene.

Trait of inheritance: autosomal-recessive

Hypotrichosis/Short Life Expectancy - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for HSLE in the FOXN1-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Birma

MDR1 gene variant (MDR) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for MDR in the ABCB1-gene.

Trait of inheritance: autosomal-recessive

Mucopolysaccharidosis type VI (MPS VI) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry any of the two causative mutations (D520N and L476P) for Mucopolysaccharidosis type VI.

Trait of inheritance: autosomal-recessive

Mucopolysaccharidosis type VII (MPS VII) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Mucopolysaccharidosis type VII in the GUSB-gene.

Trait of inheritance: autosomal-recessive

Myotonia congenita - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Myotonia Congenita in the CLCN1-gene.

Trait of inheritance: autosomal-recessive

Osteochondrodyspla..

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Osteochondrodysplasia in the TRPV4-gene.

Trait of inheritance: autosomal-dominant

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Scottish Fold

Polycystic kidney disease (PKD) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Polycystic Kidney Disease in the PKD1-gene.

Trait of inheritance: autosomal-dominant

Primary congenital glaucoma - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for PCG in the LTBP2-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Siamese

Progressive Retinal Atrophy (PRA-b) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for progressive retinal atrophy PRA-b.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breed: Bengal

Progressive Retinal Atrophy (pd-PRA) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causal mutation for pd-PRA.

Trait of inheritance: autosomal recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Persian and related

Progressive Retinal Atrophy (rdAc-PRA) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Progressive retinal atrophy (rdAc-PRA) in the CEP290-gene.

Trait of inheritance: autosomal-recessive

Pyruvatkinase Deficiency:

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Pyruvate Kinase Deficiency in the PKLR-gene.

Trait of inheritance: autosomal-recessive

Feline Spinal Muscular Atrophy (SMA) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Spinal Muscular Atrophy in the LIX1-LNPEP-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds:
Maine Coon and related breeds

Polydactyly - Hw variant - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causal mutation for polydactyly (Hw variant).

Trait of inheritance: autosomal dominant

Polydactyly - UK1 variant - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causal mutation for polydactyly (UK1 variant).

Trait of inheritance: autosomal dominant

Polydactyly - UK2 variant - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causal mutation for polydactyly (UK2 variant).

Trait of inheritance: autosomal dominant

Coat colour brown - PCR

Result: Genotype bl/bl

Interpretation: The examined animal is homozygous for the bl-allele.

The test detects the alleles B, b (chocolate) and bl (cinnamon).
Allelic series: B dominant over b, b dominant over bl

Coat colour Variant Dilution - PCR

Result: Genotype D/D

Interpretation: The examined animal is homozygous for the

D-allele.

The test detects the alleles D and d.
Allelic series: D dominant over d

Coat colour Variant Agouti - PCR

Result: Genotype a/a

Interpretation: The examined animal is homozygous for the a-allele.

The test detects the alleles A (agouti) and a (non-agouti).
Allelic series: A dominant over a

The A(Pb)-allele is detected for Bengal cats as well.

Coat colour Charcoal - PCR

Result: Genotype a/a

Interpretation: The examined animal is homozygous for the a-allele.

The test detects the alleles A (agouti) and a (non-agouti).
Allelic series: A dominant over a

The A(Pb)-allele is detected for Bengal cats as well.

Coat colour variant Tabby (Mackerel, Blotched) - PCR

Tabby (S59X)	TaM/TaM
Tabby (W841X)	TaM/Tab

The test detects the alleles TaM (Mackerel) and Tab (Blotched).
Allelic series: TaM > Tab

The blotched phenotype is expressed if the genotype Tab/Tab is present for one of the two variants.

Coat colour variant Ticked - PCR

TiA (Cys63Tyr)	N/N
TiCK (Ala18Val)	N/N

The test detects the alleles N, TiA and TiCK (Ticked).
Allelic series: TiA = TiCK > N

Coat colour variant Colourpoint - PCR

Result: Genotype C/cs

Interpretation: The examined animal is heterozygous for the C- and cs-allele.

The test detects the alleles C, cb and cs.
Allelic series: C dominant over cb, cb dominant over cs

Coat colour variant "Snow" (Bengal) - PCR

Result: Genotype C/cs

Interpretation: The examined animal is heterozygous for the C- and cs-allele.

The test detects the alleles C, cb and cs.
Allelic series: C dominant over cb, cb dominant over cs

Coat colour Amber - PCR

Result: Genotype E/E

Interpretation: The examined animal is homozygous for the E-allele.

The test detects the alleles E and e.
Allelic series: E dominant over e

Scientific studies found correlation between the mutation and coat color Amber in Norwegian Forest Cats.

Coat colour Copal - PCR

Result: Genotype E/E

Interpretation: The examined animal is homozygous for the E-allele.

The test detects the alleles E and ec (Copal).
Allelic series: E dominant over ec

Scientific studies have found a correlation between the mutation and the coat color Copal in the following breeds: Kurilian Bobtail

Coat colour Russet - PCR

Result: Genotype E/E

Interpretation: The examined animal is homozygous for the E-allele.

The test detects the alleles E and er (Russet).
Allelic series: E dominant over er

Scientific studies have found a correlation between the mutation and the coat color Russet in the following breeds: Burmese

Coat colour Variant Gold (Copper) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the N-allele.

The test detects the alleles N and wbBSH (Gold).
Allelic series: N dominant over wbBSH

Scientific studies have found a correlation between the mutation and the coat color variant Gold in the following breeds: British Shorthair

Coat Colour Variant Gold (Sunshine) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the N-allele.

The test detects the alleles N and wbSib (Sunshine).
Allelic series: N dominant over wbSib

Scientific studies have found a correlation between the mutation and the coat color variant Gold (Sunshine) in the following breeds:

Kurilian Bobtail, Siberian, Toy Bob

Coat colour Variant Gold (extreme sunshine) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the N-allele.

The test detects the alleles N and wbeSib (extreme sunshine).

Allelic series: N > wbeSib > wbSib

Scientific studies have found a correlation between the mutation and the coat color variant Gold in the following breeds: Siberian

Coat variant Curly - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the N-allele.

The test detects the alleles N and Cu.

Allelic series: Cu dominant over N.

Scientific studies found correlation between the mutation and coat variant in the following breeds: Selkirk Rex

Hairless/Curly Coat (SPH/DRX) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the N-allele.

The test detects the alleles N, hr and re.

Allelic series: N dominant over hr, hr dominant over re

Coat Length - PCR

Result: Genotype N/M4

Interpretation: The analyzed cat is heterozygous for the wildtype allele N and the allele M4, which is responsible for long coat.

The test detects the variants M1, M2, M3 and M4, which are scientifically described for long coat. Additional yet unknown variants might influence the coat length.

Congenital hypothyroidism (CH) - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causal mutation for CH in the TPO-gene.

Trait of inheritance: autosomal recessive

sex: **X/Y**

The current result is only valid for the sample submitted to our laboratory. The sender is responsible for the correct information regarding the sample material. The laboratory can not be made liable. Furthermore, any obligation for compensation is limited to the value of the tests performed.

There is a possibility that other mutations may have caused the disease/phenotype. The analysis was performed according to the latest knowledge and technology.

The laboratory is accredited for the performed tests according to DIN EN ISO/IEC 17025:2018. (except partner lab tests).

Courier costs

These results are based on the sample material submitted to our laboratory.

This was suitable if not stated otherwise. The submitter is responsible for the accuracy of the information regarding the sample. This report can only be transmitted in toto and unchanged. Doing otherwise requires written permission from Laboklin GmbH & Co. KG.

LABOKLIN is an officially accredited laboratory according to DIN EN ISO/IEC 17025:2018, DAkkS No. D-PL-13186-01-01 D-PL-13186-1-02 and D-PL-13186-01-03. The accreditation applies to all test procedures listed in the accreditation certificate.

*** END of report ***

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Abt. Molekularbiologie

*** News from the laboratory ***

Like the equine Parvovirus, the equine Hepacivirus has been associated with hepatopathies in horses. The PCR-tests can be performed using serum, EDTA whole blood as well as liver tissue. The tests can be ordered individually (#8906) or in the profile "hepatotropic viruses" (#8918).