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<http://vetlaba.ru>

Maine coon HCM (hypertrophic cardiomyopathy) test

| | | | |
|--|--|------------------------|------------------------------|
|  Vizi Barbara | | | Test number: 16102020-Viz |
| Cattery HU*Diamond Star | DOB 06.06.2020 | Electronic chip | Report date: 20.10.2020 |
| Breed Maine Coon | Cat LV*Cats Gang Desiree, red smoke | Sex ♀ | |

Result

N/N

Result Codes:

N/N – Cat is homozygous for a normal type (i.e. carry two normal copies of the *MYBPC3* gene).

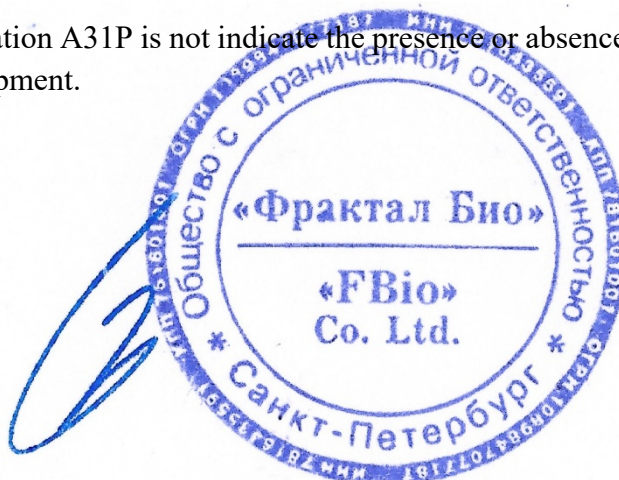
N/HCMmc – Cat is heterozygous for the mutant allele (one copy of the *MYBPC3* gene carry the A31P mutation).

HCMmc/HCMmc – Cat is homozygous for the A31P mutation (two copies of the *MYBPC3* gene carry the A31P mutation).

This test only detects the A31P mutation associated with HCM in Maine Coon cats and outcrosses as described by Meurs *et al.*, 2005.

The presence or absence of the mutation A31P is not indicate the presence or absence of the disease, but only describes the risk of its development.

Chief of molecular
diagnostics laboratory
Bagmanova S. Elena






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Feline ADPKD test (autosomal dominant polycystic kidney disease)

| | | | |
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Result

N/N

Result Codes:

N/N – Cat is homozygous for a normal type (i.e. carry two normal copies of the *PKDI* gene).

N/pkd1 – Cat is heterozygous for the mutant allele (one copy of the *PKDI* gene carry the 10063C>A mutation).

pkd1/pkd1 – Cat is homozygous for the 10063C>A mutation (two copies of the *PKDI* gene carry the 10063C>A mutation). Homozygote form could be lethal in utero or at a very early age.

This test detects the 10063C>A mutation associated with autosomal dominant polycystic kidney disease in cats as described by Lyons *et al.*, 2004.

The presence of the only one copy of the *PKDI* gene containing the 10063C>A mutation causes ADPKD.

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Feline SMA test (autosomal recessive spinal muscular atrophy)

| | | | |
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| Breed Maine Coon | Cat LV*Cats Gang Desiree, red smoke | Sex ♀ | |

Result

N/N

Result Codes:

N/N – Cat is homozygous for a normal type (i.e. carry two normal copies of the *LIX1-LNPEP* locus).

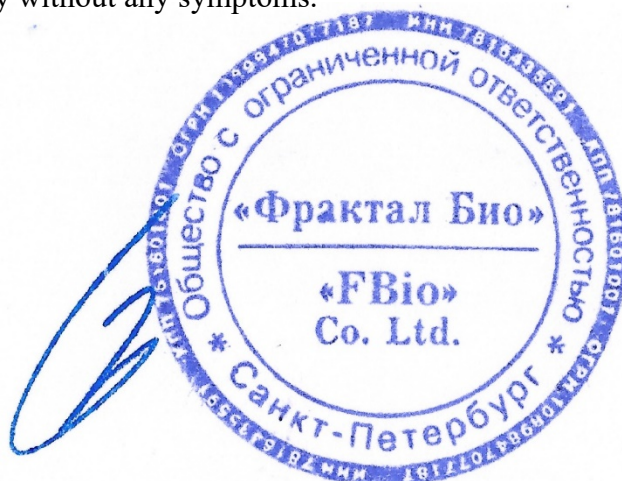
N/lix1-lnpep – Cat is heterozygous for the mutant alleles (one copy of the *LIX1-LNPEP* locus carry the deletion).

lix1-lnpep/lix1-lnpep – Cat is homozygous for the mutant alleles (two copies of the *LIX1-LNPEP* locus carry the deletion).

This test detects the 140-kb deletion in the *LIX1-LNPEP* locus associated with autosomal recessive spinal muscular atrophy in domestic cats as described by Fyfe *et al.*, 2006.

The SMA disease affects cats with two mutant copies of the *LIX1-LNPEP* locus only. Cats with only one mutant copy of the *LIX1-LNPEP* locus are clinically without any symptoms.

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Feline PK Deficiency test (Pyruvate Kinase Deficiency in Felines)

| | | | |
|--|---|-----------------|------------------------------|
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| Cattery HU*Diamond Star | DOB 06.06.2020 | Electronic chip | Report date: 20.10.2020 |
| Breed Maine Coon | Cat LV*Cats Gang Desiree, red smoke | Sex ♀ | |

Result

N/N

Result Codes:

N/N – Cat is homozygous for a normal type (i.e. carry two normal copies of the *PKLR* gene).

N/k – Cat is heterozygous for the mutant allele (one copy of the *PKLR* gene carry the mutation).

k/k – Cat is homozygous for the mutant allele (two copies of the *PKLR* gene carry the mutation).

This test detects the *c.693+304G>A* mutation associated with pyruvate kinase deficiency in Felines as described by Grahn *et al.*, 2012.

The PKdef disease affects cats with two mutant copies of the *PKLR* gene only. Cats with only one mutant copy of the *PKLR* gene are clinically without any symptoms but are the carriers.

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AB Blood Group DNA-test in Felines

| | | | |
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| Breed Maine Coon | Cat LV*Cats Gang Desiree, red smoke | Sex ♀ | |

Result

N/N

Result Codes:

N/N – Cat is type A or type AB.

N/b – Cat is a carrier of B factor; serotype could be Type A or Type AB.

b/b – Cat is type B.

The DNA blood group test identifies cats that have the B serotype (two copies of b allele) and also that are B carriers (one copy of the b allele, A or AB serotypes). Because the DNA test cannot distinguish between a Type A versus a Type AB cat, the non-b allele is reported as N. The cat could have a Type A or Type AB serotype.

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Feline dilute/full color test

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| Breed Maine Coon | Cat LV*Cats Gang Desiree, red smoke | Sex ♀ | |

Result

D/d

Result Codes:

D/D – Cat is full colored (i.e. carry two normal copies of the *MLPH* gene). All offspring will have full colored hair.

D/d – Cat is a carrier of dilute allele (one copy of the *MLPH* gene carry the *MLPH-Δ1* mutation). Cat is full colored. The coat color of the offspring depends on the genotype of another parent.

d/d – Cat is dilute colored (two copies of the *MLPH* gene carry the *MLPH-Δ1* mutation). The coat color of the offspring depends on the genotype of another parent.

This test detects the *MLPH-Δ1* mutation associated with producing of truncated melanophilin protein and manifestation of the dilute coloration in Felines as described by Ishida *et al.*, 2006.

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Feline agouti/non-agouti test

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|--|---|-----------------|------------------------------|
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| Breed Maine Coon | Cat LV*Cats Gang Desiree, red smoke | Sex ♀ | |

Result

a/a

Result Codes:

A/A – Cat is homozygous for agouti (i.e. carry two normal copies of the *ASIP* gene). All offspring will have agouti banded hair.

A/a – Cat is heterozygous for agouti (one copy of the *ASIP* gene carry the *ASIP-Δ2* mutation).

a/a – Cat is homozygous for agouti (two copies of the *ASIP* gene carry the *ASIP-Δ2* mutation).

This test detects the *ASIP-Δ2* mutation associated with producing of truncated *ASIP* protein in Felines as described by Eizirik *et al.*, 2003.

The recessive **a** (non-agouti) allele produces a cat that is self-colored (solid) when 2 copies of **a** are present. Also the **a** allele blocks the tabby pattern manifestation. The dominant **A** allele produces hair shafts with alternating bands and the tabby patterns.

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