

Detection of 18 bp insertion in position -53
5'UTR of the CMAH gene implicating feline
blood group phenotype

Sample

Sample: 16-34005
Name: Charlotte Champion Mewtwo, Cz
Breed: British Shorthair
Date of birth: 7.2.2014
Microchip: 953 000 010 187 350
Sex: female
Date received: 06.12.2016
Sample type: blood
The identity of the animal has been checked by
MVDr. Petra Orthová

Customer

Lucie Břízová
Za Prachárnou 11
58605 Jihlava
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Result: Based on mutation examination genotype was determined b/b

Explanation

Presence or absence of 18 bp insertion in position -53 5'UTR of the CMAH gene implicating feline blood group phenotype was tested. Genetic test is based on detection of allele **b**, which is linked to feline serological B blood group.

Result codes:

non-b/non-b – **b** allele not detected, serological blood group A or AB

non-b/b – one copy of **b** allele detected, carrier individual, serological blood group A or AB

b/b – two copies of **b** allele detected, serological group B

The genetic test is not suitable for Ragdoll and Turkish Angora cats.

The knowledge of blood groups in cats is important in any need of blood transfusion and in case of neonatal isoerythrolysis (NI) in newborn kittens.

Kittens can suffer from NI in case of crossbreeding of a B blood type female cat to a A blood type male cat. Risk arises for kittens with A blood group (in fact these kittens are genetically A/b). Kittens are fed with colostrum containing anti-A antibodies. These anti-A antibodies destroy their own erythrocytes. Within a few hours hemolytical disease develops and kittens are in danger of life. Accompanying symptoms of hemolytical disease are disappearance of suction reflex, lethargy, restlessness, icterus, brown colour of urine. The main prevention of NI is to find out blood groups of parent cats to prevent mating a B blood type female cat to a A blood type male cat.

Method: SOP171-CMAH, fragment analysis, accredited method

Report date: 14.12.2016

Responsible person: Mgr. Markéta Dajbychová, Deputy Laboratory Manager

Genomia is accredited according to ISO/IEC 17025:2005 under #1549.

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