

Detection of c.457G>A MATP gene variants  
(locus C) influencing horse coat color by  
PCR-RFLP

**Customer:** Jan Novák, Dlouhá 1, 30000 Plzeň, Czech Republic

**Sample:**

Sample: 21-12351

Date received: 01.02.2021

Sample type: horsehair

Information provided by the customer

**Name:** Black And White DEMO

**Breed:** Český teplokrevník

Date of birth: 25.11.2016

Reg.number : DE-123-456-789-012

Tattoo: 123456789012345

Sex: male

Date of sampling: 01.02.2021

The identity of the animal has been checked by MVDr. Veselý Josef.

Result: Based on gene variants examination genotype was determined Cr/N

**Explanation**

Presence of c.457G>A (p.Asp153Asn) MATP gene variants (locus C) influencing horse coat color was examined.

Cr allele of MATP gene is one of the many alleles responsible for diluting of horse color. Cr allele is semi-dominant gene with the so-called dosing effect. If a horse has one Cr allele (heterozygote NCr), the first dilution occurs and the base chestnut colour is changed to palomino, bay to buckskin and black to smoky black. In the case, two Cr alleles are present (homozygote CrCr) double dilution occurs and the basic chestnut colour changes to cremello, bay to perlino and black to smoky cream.

Method: SOP070, PCR-RFLP

Date of issue: 06.02.2021

Date of testing: 01.02.2021 - 06.02.2021

Approved by: Mgr. Martina Šafrová, Laboratory Manager



Genomia s.r.o, Republikánská 6, 31200 Plzeň, Czech Republic  
www.genomia.cz, laborator@genomia.cz, tel: +420 373 749 999

Report verification code is: 12AB-CD34-GENO-MIA0-EFGH. You can verify report online at [www.genomia.cz](http://www.genomia.cz)

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