

Detection of p.Gly96Glu mutation in cFVII gene causing Factor VII deficiency in several dog breeds

**Sample**

Sample: 18-08120  
Name: Hasco vom Ammeler Forst  
Breed: Beagle  
Microchip: 756 097 200 034 766  
Reg. number: 675986  
Date of birth: 10.09.2008  
Sex: male  
Date received: 28.03.2018  
Sample type: blood  
The identity of the animal has been checked by Dr. med. vet. Fabienne Künzli

**Customer**

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**Result: Mutation was detected in heterozygous status (N/P)**

**Legend:** N/N = wild-type genotype. N/P = carrier of the mutation. P/P = mutated genotype (individual will be most probably affected with the disease). (N = negative, P = positive)

**Explanation**

Presence or absence of p.Gly96Glu mutation in cFVII gene causing Factor VII (FVII) deficiency in several dog breeds (Beagle, Airedale Terrier, Alaskan Klee Kai, Giant Schnautzer and Scottish Deerhound) was tested. Factor VII is a vitamin K-dependent glycoprotein that plays a pivotal role in the initiation of coagulation. The deficiency of FVII affects the blood coagulation and causes excessive bleeding in case of an injury or other intervention in the organism.

Mutation that causes FVII deficiency is inherited as an autosomal recessive trait. That means the disease affects dogs with P/P genotype only. The dogs with N/P genotype are considered carriers of the disease (heterozygotes). In offspring of two heterozygous animals following genotype distribution can be expected: 25 % N/N, 25 % P/P and 50 % N/P.

Method: SOP172-FVII, direct DNA sequencing

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Responsible person: Mgr. Markéta Dajbychová, Deputy Laboratory Manager



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