

Shedding

The dogs coat structure and length are influenced by several known genetic traits. A variant in the MC5R gene has been found to be associated with hair shedding as well as the coat length.

The recessive allele for shedding (sh-allele) is found in breeds which tend to have high degree of shedding (genotype sh/sh). Dogs with one copy of the normal allele N-allele for non-shedding shed significantly less hair.

N/N: low shedding

N/sh: Moderate

sh/sh: High degree of shedding

The furnishing variant of the RSPO2 gene influences the shedding too. Dogs which are homozygous for the dominant furnishing genotype F/F do not show heavy shedding, irrespective of the genotype on the MC5R gene.

Coat length is determined by several recessive variants on the FGF5 gene (coat length locus) as well as the dominant furnishing variant on the RSPO2 gene. Additionally, the shedding gene is found to have influence on the coat length too.

Longer coat is generally associated with the recessive l-allele (long-haired), the dominant F-allele (furnished) and / or the recessive sh-allele (shedding), while short hair is associated with the dominant L-allele (short-haired), the recessive f-allele (unfurnished) and / or the dominant N-allele (non-shedding).

Medium hair-length seen in some genetically short-haired (FGF5 L/L or L/l) and unfurnished breeds from the shepherd or retriever group may be explained by the shedding gene.

SHEDDING	sh/sh F/F	sh/sh F/f	sh/sh f/f	Highest
	N/sh F/F	N/sh F/f	N/sh f/f	Moderate High
	N/N F/F	N/N F/f	N/N f/f	Lowest
	FURNISHING			