

Curly hair

Applicable breeds: Bichon frise, Border Collie, Chesapeake Bay Retriever, Chihuahua, Dachshund, Havanese, Kerry Blue Terrier, Leonberger, Maltese, Portuguese Water Dog, Soft Coated Wheaten Terrier

Please note this test is only relevant in specific breeds; in other breeds where curly-hair occurs other, as yet undiscovered, genes are responsible.

Specifically curly or non-curly hair is desirable in some breeds, and some breeders may want to identify which of their breeding stock carry the gene for non-curly hair.

This test will identify those curly-haired dogs which carry the gene for non-curly hair. These carriers can produce offspring with non-curly hair when mated with other carriers. The gene for curly hair is denoted C, and the gene for non-curly hair is denoted N.

This test is particularly useful for breeders:

- To identify curly-haired dogs which carry the non-curly gene, and could therefore produce non-curly-haired offspring when mated with other carriers
- To confirm that their apparently curly dog does indeed have the curly-hair gene

This test will be reported as:

CC : dog is curly-haired and does not carry the non-curly gene

CN : dog is curly-haired but carries the non-curly gene

NN : dog is non-curly and carries two non-curly genes

The genetic status of dogs can be used to predict breeding outcomes when different combinations are mated:

CC X CC = 100% CC

CC X CN = 50% CC, 50% CN

CN X CN = 25% CC, 50% CN, 25% NN

CN X NN = 50% CN, 50% NN

NN X NN = 100% NN

References

Cadiou E, Neff MW, Quignon P, Walsh K, Chase K, Parker HG, VonHoldt BM, Rhue A, Boyko A, Byers A, Wong A, Mosher DS, Elkahoulou AG, Spady TC, Andre C, Lark KG, Cargill M, Bustamante CD, Wayne RK, Ostrander EA (2009) Coat variation in the domestic dog is governed by variants in three genes. *Science* 326(5949): 150-153