



**Labradors come in three colours only..... yellow, chocolate, and black.** Pure bred Labradors DO NOT CARRY THE DILUTE GENE. So called “rare colours” of ‘silver’, ‘charcoal’ and ‘champagne’ Labradors are NOT pure-bred Labradors, they are derived from crossing with other breeds, generally the Weimaraner. There is a DNA test to establish whether your Labrador carries the dilute gene.

### **How do I test my dogs?**

Simply request a D-locus gene test from one of the laboratories listed, e.g., Animal DNA Diagnostics (£27) or Animal Genetics UK (£25 with code LAB25). Each will send swabs which are then wiped on the inside of your dog’s cheek and returned, following the instructions on the package.

**Finally, when you get your result, please visit**

<https://www.purebredlabrador.net> to register your result. There is a one-off payment of £5 to register, allowing you to add as many dogs as you wish. Please also have your certificates ready to send as proof of testing. The list of clear dogs is available via this link

<https://www.purebredlabrador.net/Webpages/Listcleardogs.html>

# LIST OF LABORATORIES WHO OFFER THE DILUTE GENE TEST APPROVED AND RECORDED BY THE KENNEL CLUB

**Animal DNA Diagnostics** <https://www.animaldnadiagnostics.co.uk/>

**Animal Genetics UK**

<https://www.animalgenetics.eu/product/Canine/DLocus.html>

**DDC (Vet DNA centre)**

<https://dnacenter.com/products/veterinary/canine-dna-testing/breeds/labrador-retriever-dna-tests/>

**Embark** <https://embarkvet.com/>

**Laboklin**

<https://www.laboklin.co.uk/laboklin/showGeneticTest.jsp?testID=8136>

**Pawprint Genetics**

<https://www.pawprintgenetics.com/products/panels/details/242/>

**VetGen** <https://www.vetgen.com/canine-coat-color.html>

The Kennel Club list of approved laboratories is available here, however, please note that not all of these offer the dilute test.

[www.thekennelclub.org.uk/approvedlabs](http://www.thekennelclub.org.uk/approvedlabs)

## COAT COLOUR GENETICS FOR THE DILUTE GENE IN LABRADORS

### **D Locus (DNA marker tested – C.22G > A)**

Associated with the dilution or lightening effect of solid colours, with D being the dominant allele, the dd genotype results in the diluted effect (like silver, charcoal, and champagne).

#### **Possible Genotypes:**

*DD* – does not carry the dilute, has 0 copies and will NOT pass dilute to offspring.

*Dd* – dilute carrier - has 1 copy of dilute *d*, and 1 normal allele *D*, has 50% chance of passing dilute to offspring.

*dd* – dilute phenotype - has 2 copies of dilute *dd*, will display dilution in their own coat and will ALWAYS pass dilute to any offspring.