

Chocolate Coat Colour

About the Colour

A mutation in the Brown gene (tyrosinase-related protein-1, *TYRP1*) results in the Chocolate coat colour.

The B allele is wild-type and produces a normal colouration, the mutant b allele produces a chocolate colouration. The mutation is recessive, hence two copies of the b allele are required for chocolate colouration.



Interpretation of results

Test Result	Interpretation
Chocolate (b/b)	Has two copies of the Chocolate allele (b/b). Cat is Chocolate.
Carrier of Chocolate (B/b or b/bl)	Has one copy of the Chocolate allele. Cat is Full colour (B/b) or possibly Chocolate if the cat also carries Cinnamon (b/bl).
Does not carry Chocolate (B/B, B/b ^l or b ^l /b ^l)	Has no copies of the Chocolate allele. Cat is Full colour (B/B, B/b ^l) or possibly Cinnamon (b ^l /b ^l).

FAQs

How do I test for Lilac in my Ragdolls?

Lilac is the result of the Dilute gene working on the Chocolate gene.
The results must be Chocolate (b/b) and Dilute (d/d) for the Ragdoll to be Lilac.

How do I test for Lilac in my British Shorthairs?

Lilac is the result of the Dilute gene working on the Chocolate or Chocolate and Cinnamon genes.
The results must be Chocolate (b/b) and Dilute (d/d) or Chocolate carrying Cinnamon (b/b^l) and Dilute (d/d) for the British Shorthair to be Lilac.

Reception Hours

Mon-Fri 9am - 5pm

Contact Us

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The genetics of Chocolate, Cinnamon and Dilute colours

The Brown gene

The Brown gene has three alleles (B, b and b^l), with B dominant to b, and b dominant to b^l. When B is present (BB, Bb or Bb^l) the coat colour is its normal, full colour. If a cat is bb or bb^l the brown is lightened to chocolate. When a cat is b^l b^l the colour is further lightened to cinnamon.

Chocolate, Cinnamon and Dilute Colours

Chocolate/Cinnamon	Dilute	Coat colour
BB or Bb or Bb ^l	DD or Dd	Black/Brown
BB or Bb or Bb ^l	dd	Blue
bb or bb ^l	DD or Dd	Chocolate
bb or bb ^l	dd	Lilac
b ^l b ^l	DD or Dd	Cinnamon
b ^l b ^l	dd	Fawn

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