Cat Blood Groups - Overview

One of the main issues surrounding blood groups is the terminology used by different laboratories. This can cause confusion amongst breeders. Hopefully all laboratories can get together to try to standardise the terminology used. The main blood group system in the domestic cat is the AB System with the common blood types being A and B.

Here are some important facts on cat blood groups – facts that we can definitely conclude:

**b/b = TYPE B**
- All we can determine is the mutation(s) that makes a cat Type B (bb).
- Cats with Type B present concern with neonatal isoerythrolysis.
- Therefore this is a cat that does not have the b mutation (currently not much is known what it is) and generally we assume it is Type A, however there is also Type AB.
- The genetic test cannot distinguish between Type A and Type AB blood types.
- The main thing that this result tells you is that the cat carries the B gene and so if mated to another cat carrying the B gene (e.g. another type A cat carrying the B gene, or A/b) then blood Type B kittens may be produced.

**nonb/b (also referred to as N/b)**
- We know that this is a cat carrying Type B - can be either A/b or AB/b.

**nonb/nonb = TYPE A (also referred to as N/N)**
- We know that this cat could be A/A or Ab/Ab or A/AB.

**TYPE AB (Indeterminable/Discordant)**
- The only way to truly define this blood group is to carry out serology/agglutination test.
- The cat may be a Type AB blood type, however this is very rare and the inheritance and expression of this is complex.
- Type A is dominant to Type B (b) so an A/b result means the cat is Type A blood group carrying the B gene. These cats will have naturally occurring anti-B antibodies.

Breeds that do not have the B type blood groups are Siamese, Burmese, Russian Blue, Ocicat and Oriental Shorthair. Breeds with high incidence (up to 60%) of the B blood type are Exotics, British Shorthair, Cornish Rex and Devon Rex. The incidence of the AB type is reported to be less than 6% depending on country and breed.

Please Note: The blood type genetic test is available for all domestic breeds of cat. The test does have an accuracy of approximately 97% at predicting a cat’s blood type; Studies have shown that in about 3% of cats the genetic results do not match the conventional blood typing results, indicating that there are additional mutations yet to be identified. The test has been validated for domestic cat breeds only. The accuracy of results for wildcats and hybrids (Serval, Bengals, Chaussies) has not been determined.
Predicted Kitten Outcomes Of Mating Different Blood Groups

- **Mating a dam and sire that are Type A or AA WILL produce ALL (100%) kittens that are Type A (If the mating is correct)**

- **Mating a dam and sire that are Type B or bb WILL produce ALL (100%) kittens that are Type B (If the mating is correct)**

- **Mating a Type B Parent with a Type A Parent WILL produce ALL (100%) kittens that are Type Ab (Type A carrying Type B)**

- **Mating a Type Ab Parent with a Type Ab Parents MAY produce 25% kittens that are Type A, 50% kittens that are Type Ab (Type A carrying Type B) and 25% that are Type B**

- **Mating a Type Ab Parent with a Type B Parent MAY produce 50% kittens that are Type Ab (Type A carrying Type B) and 50% that are Type B**