

# An Overview of Feline Blood Groups

## Genetic Pet Care

### TRANSFUSIONS

The main thing is you have to give the cat the **same** blood group as it has – if a cat is **Blood Group A** it **MUST** get the **Blood Group A**, if it is **Blood Group B** it **MUST** get **Blood Group B**, as A blood will kill the cat fairly quickly.

If a cat is a **Blood Group AB** (which is rare) they can receive blood from any cat, as they have no A or B antibodies – this is only for the first transfusion, after this, you must crossmatch – this really applies to all cats.

### GENETICS AND BREEDING DECISIONS

The genetic test is not much use for emergency medicine and transfusions, although if a cat is B this would be very handy to know if the cat has haemolytic anaemia, as the agglutination makes the bench top ELIZA test for blood type harder to read.

The main point of this test in genetics is that you don't want to breed a **Blood Group B** mum to a **Blood Group A** tom – you can get **neonatal isoerythrolysis** in the kittens if they inherit Type A bloodtype from their sire, as they absorb mum's anti-A antibodies from the colostrum and their red blood cells will react with these antibodies, and in effect "explode". The haemolytic crisis that occurs can be fatal.

#### Genetic Results are reported as:

<b>Type A (non-b/non-b)</b>	cats have a low level of anti-B antibodies
<b>Type B (b/b)</b>	cats have a HIGH level of anti-A antibodies
<b>Type AB (b/non-b)</b>	cats have no antibodies to A or B
<b>Indeterminable</b>	genetic result is inconclusive

So only breed a **Blood Group B** mum to a **Blood Group B** tom. Or (if you ever see one) an AB tom – do not breed to an A type tom.

If a cattery does not have **Blood Group B** toms, then you can screen young queens and do not use **Blood Group B** queens in breeding program.

**Indeterminable** is seen in around 2-3% of cases, this result is obtained when the genetic result is inconclusive and the status of the B blood group cannot be genetically determined (additional mutation present that has not been identified). It is recommended that any such cases get serology performed on these cats to obtain a conclusive result. All indeterminable genetic results are repeated.

### THE AUSTRALIAN VET EXPERIENCE

Unlike the overseas literature, from what vets tend to see in a clinic, Orientals seem to have higher incidence of B type than domestics in Australia (Siamese and Burmese). Most vets do not see enough other breeds with IMHA to really say how common the B type is. Some vets only see one AB type ever.

Around 60-70% general domestic population in Australia is Type A (non-b/non-b), 25-35% is Type B (b/b) and 1% approx is Type AB (b/non-b).

Personal Animal Genetics

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