

GEL TEST PROCEDURE

Gel.Test XM *Feline*

PROCEDURE FOR FELINE MAJOR CROSSMATCH



25 min



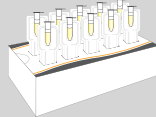
ALVEDIA
alice veterinary diagnostics

Material provided:

1 buffer solution



1 box of 10 DAT
Gel Tests



**MOVIE
PROCEDURE**

(Scan
the QR code)

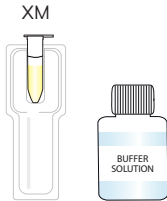
- Test result
- Record result
- Troubleshooting

SAMPLE MATERIAL: **DONOR** blood tube or blood bag segment. **RECIPIENT** blood tube.
Preferably drawn into EDTA, CPDA or ACD only. **Do not use Heparin.**
If blood bag segment > 7 days: wash 1 time the blood.

MATERIAL REQUIRED: Specific centrifuge: Hettich EBA270 or Drucker True Bond ;
2 micropipettes (100-1000µl + 10-100µl) ; 20 test tubes (min. 1.5 ml).

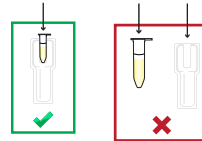
A PREPARATION OF MATERIAL PROVIDED

Allow the buffer solution and Gel Tests
to reach room temperature before use.

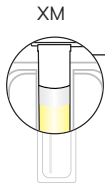


**DO NOT DISSOCIATE
FOR CENTRIFUGATION**

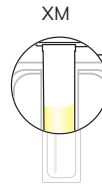
Gel Test = Gel tube + Gel support



B VISUAL CHECKING BEFORE USE



Translucent
supernatant



Do not use if dry
gel. Please contact
scientific support.



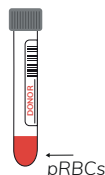
C PREPARATION OF BLOOD SAMPLE FOR DAT

DONOR BLOOD TUBE

Centrifuge blood tube:

- with Hettich: 3 minutes
at 3500 RPM
- with Drucker: program "Blood
separation" (3200 RPM / 3min)

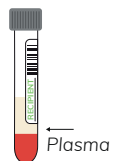
Discard plasma.



RECIPIENT BLOOD TUBE

Centrifuge blood tube:

- with Hettich: 3 minutes
at 3500 RPM
- with Drucker: program "Blood
separation" (3200 RPM / 3min)



*MINOR XM: Reverse the blood samples by collecting **RECIPIENT** pRBCs and **DONOR** Plasma

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D RBCS SUSPENSION PREPARATION

STEP 1

Identify the Gel Test.

STEP 2

Take a first test tube, transfer 1ml of buffer solution.

STEP 3

Collect 10µl of **DONOR*** pRBCs and transfer in the first test tube.

Mix the suspension.

*For MINOR XM collect 10µl of **RECIPIENT** pRBCs

D MAJOR XM GEL TEST PROCEDURE

STEP 1

Take a second test tube

STEP 2

Transfer 50µl of RBCs suspension in the second test tube.

STEP 3

Transfer 25µl of **RECIPIENT*** plasma in the second test tube.

*For MINOR XM collect 25µl of **DONOR** plasma

STEP 3

Mix gently & incubate at room temperature :

10 min

STEP 4

Mix gently the incubated suspension.

STEP 5

Transfer 30µl of incubated suspension in the Gel Test.

Drop gently the suspension on the top of the gel without touching the gel with the pipette.

STEP 6

Hettich: Centrifuge Gel Tests for 10 minutes at 1500 RPM
Drucker: Centrifuge Gel Tests program "Gel Test" (1500 RPM / 10min)

STEP 7

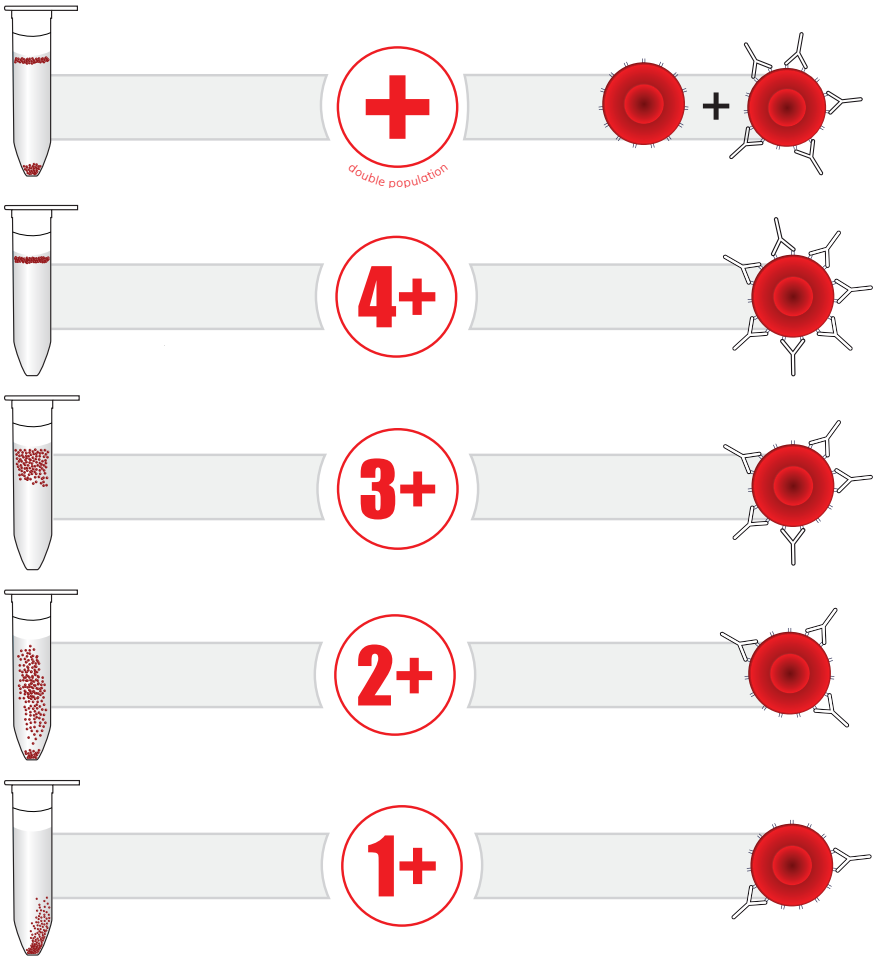
Scan your test on the app using the gel test photo booth:

RESULT INTERPRETATION

Compatibility = SAFE TRANSFUSION



Incompatibility = DO NOT TRANSFUSE



SCIENTIFIC INFORMATION

Scientific information:

- It is MANDATORY to blood type both the donor and the recipient for the AB blood group system before performing a Feline XM Test.
- This test allows detection of incompatibilities associated with the AB blood group system, Mik, Feline Erythrocyte Antigens (FEA), and other unidentified red blood cell alloantibodies.
- This test is used to detect alloantibodies after a mismatched transfusion or naturally occurring alloantibodies.
- Positive XM reactions may be observed in IMHA patients due to circulating autoantibodies present in the recipient plasma.
- Cats may rapidly develop alloantibodies following a transfusion. A XM is recommended before any transfusion, even if a previous transfusion was compatible.
- Test results must be interpreted in conjunction with the clinical and therapeutic context.
- The use of properly stored and well-preserved red blood cells is essential for reliable test performance and accurate result interpretation: samples showing hemolysis, bacterial contamination, or poor preservation may lead to inaccurate results.
- In Minor XM tests, weak false-positive reactions may occasionally occur when frozen-thawed donor plasma contains residual fibrin aggregates. If visible fibrin filaments are observed in the plasma sample, a centrifugation step is recommended.

LIMITATIONS

- Blood bag segment stored for more than 7 days: wash 1 time in PBS or saline buffer (NaCl 0,9%) to obtain washed pRBCs.
- Do not use Gel Test tubes which show signs of drying.
- Gel Test tubes which show air bubbles or gel drops in the upper part of the tube must be centrifuged before use.
- Strict adherence to the procedures and recommended equipment, especially the Hettich EBA270 and Drucker True Bond, is essential for a reliable and validated result.
- A non-specific centrifuge (fixed angle centrifuge) will give you false positive results.
- Debris, fibrin residues or other artefacts may cause a few unagglutinated cells to trap on top of gel, but these should be interpreted as negative.
- Use of suspension solutions others than the provided one may modify the reactions.
- Too diluted or concentrated red blood cell suspensions can cause aberrant results.

Procedure Alvedia - update 31/08/2026 Small Stories®

Troubleshooting / Information
Please contact the Scientific Support
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ALVEDIA
alice veterinary diagnostics