







Alvedia is a company specialized in the field of veterinary diagnostics, providing veterinary health professionals with the most advanced and innovative immunochromatographic technology.

**B**ased in Lyon, France, Alvedia provides a full range of canine, feline, swine & equine diagnostics products.

### DISCOVER OUR BLOOD TYPING IMMUNOCHROMATOGRAPHIC TECHNOLOGY

### Importance of blood typing

The determination of blood type is an essential process that ensures animals will benefit from transfusion support. Nowadays, a dog or a cat has a significant probability of being transfused once or more in their lifetime. Basic blood typing is essential to perform these first and subsequent transfusions as safely as possible and also to make the best use of the donated blood.

### Our technology

The system is based on the migration of red blood cells on a membrane. Monoclonal antibodies specific to each antigen (DEA 1 in dogs, A/B in cats, A/O in pigs and Ca in horses) have been incorporated on the membrane. Theses antibodies will retain positive antigens (DEA 1 in dogs, A/B in cats, A in pigs and Ca in horses).

A positive result is characterized by the presence of 1 or 2 red lines in front of the A and/or B for the feline QuickTest or a red line in front of DEA 1 for the canine QuickTest. A positive result is characterized by the presence of a red line in front of the Ca line for the equine QuickTest. The control line (C) must be positive; this signifies that the test has run successfully.

### Benefits

#### 5 minutes procedure

- All material included
- Archivable
- Easy handling
- Reliable results
- Easy interpretation
- High specificity
- Snap result





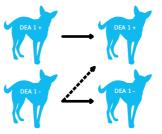
In dogs, the determination of DEA 1 antigen is strongly recommended before any blood transfusion to avoid a potent alloantibody response against this antigen and to avoid an acute haemolytic transfusion reaction.

### **DEA 1 BLOOD GROUP COMPATIBILITY**









Recipient

### RELIABLE IN CASE OF AUTO-AGGLUTINATION RELIABLE IN CASE OF LOW PCV (ANEMIA)

blood cells (RBCs) will be retained at the bottom of the membrane with a low pcv a reliable blood type can be obtained. whereas non agglutinated RBCs will continue to migrate to the top of the membrane.



Thanks to our specific membrane technology, the agglutinated red Thanks to the sensivity of our specific monoclonal antibodies, even



10% PCV

5% PCV









In cats, the presence of naturally occurring alloantibodies in type A and in type B cats requires that blood typing must be performed prior to blood transfusion to avoid an acute haemolytic transfusion reaction, and in breedings to prevent neonatal isoerythrolysis. Blood can be taken directly from the umbilical cord for the blood typing test.

### A/B/AB BLOOD GROUP COMPATIBILITIES

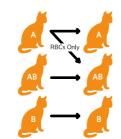
Recipient





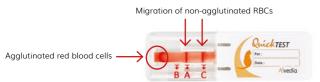






### RELIABLE IN CASE OF AUTO-AGGLUTINATION RELIABLE IN CASE OF LOW PCV (ANEMIA)

blood cells (RBCs) will be retained at the bottom of the membrane with a low pcv a reliable blood type can be obtained. whereas non agglutinated RBCs will continue to migrate to the top of the membrane.



Thanks to our specific membrane technology, the agglutinated red Thanks to the sensivity of our specific monoclonal antibodies, even

















## SCAN QR CODE: Procedure QuickTest BT Equine QuickTest BT Equine

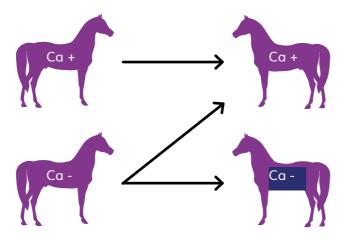
In horses, there are 7 main blood group systems (A,C,D,K,P,Q,U) with greater than 30 red blood cell factors. Of these, Ca seems to be one of the most immunogenic (causing allo-immunization) antigens.







### Ca BLOOD GROUP COMPATIBILITY

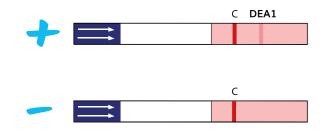




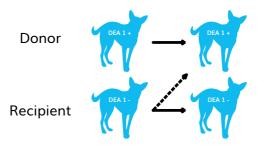


### SCAN QR CODE: Procedure LabTest BT Canine LabTest BT Canine

In dogs, the determination of DEA 1 antigen is strongly recommended before any blood transfusion to avoid a potent alloantibody response against this antigen and to avoid an acute haemolytic transfusion reaction.



### DEA 1 BLOOD GROUP COMPATIBILITY

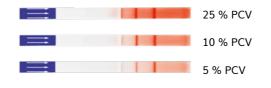


### RELIABLE IN CASE OF AUTO-AGGLUTINATION RELIABLE IN CASE OF LOW PCV (ANEMIA)

blood cells (RBCs) will be retained at the bottom of the membrane with a low pcv a reliable blood type can be obtained. whereas non agglutinated RBCs will continue to migrate to the top of the membrane.



Thanks to our specific membrane technology, the agglutinated red Thanks to the sensivity of our specific monoclonal antibodies, even







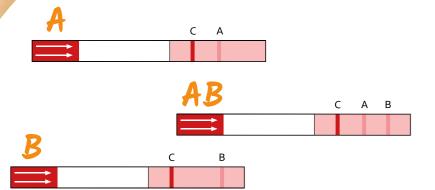


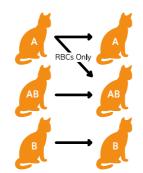


### SCAN QR CODE: Procedure LabTest BT Feline LabTest BT Feline

In cats, the presence of naturally occurring alloantibodies in type A and in type B cats requires that blood typing must be performed prior to blood transfusion to avoid an acute haemolytic transfusion reaction, and in breedings to prevent neonatal isoerythrolysis. Blood can be taken directly from the umbilical cord for the blood typing test.

### A/B/AB BLOOD GROUP COMPATIBILITIES





Recipient

### RELIABLE IN CASE OF AUTO-AGGLUTINATION RELIABLE IN CASE OF LOW PCV (ANEMIA)

Thanks to our specific membrane technology, the agglutinated red Thanks to the sensivity of our specific monoclonal antibodies, even blood cells (RBCs) will be retained at the bottom of the membrane whereas non agglutinated RBCs will continue to migrate to the top of the membrane.

with a low pcv a reliable blood type can be obtained.

Donor









### DISCOVER OUR CANINE CROSSMATCHING IMMUNOCHROMATOGRAPHIC TECHNOLOGY

### Importance of canine crossmatching

**D**ogs have many blood types on the surface of their red blood cells and with the absence of test kits for all of these blood groups (except for DEA 1), it is mandatory to perform a reliable crossmatch test before any transfusion.

Crossmatching aims to establish a serological compatibility between the recipient and the donor. The classical technology uses an agglutination reaction to detect alloantibodies produced after a previous transfusion.

### Benefits

### 25 minutes procedure

- All material included
- Time saving
- Easy handling
- Reliable results
- Easy interpretation

### Our technology

**O**ur canine crossmatch test (major and/or minor) is based on an immuno-chromatographic technology. We have incorporated on a membrane a specific canine antiglobulin that will detect the presence of immunoglobulins (IgG & IgM) and/or C3 components binding to the red blood cells (RBCs) surface.



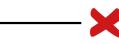


Our canine crossmatch test will allow you to pick up incompatibilities accross all canine blood groups (DEA 1, 3, 4, 5, 7, DAL...).

A positive result between donor RBCs and recipient serum / plasma indicates the presence of alloantibodies in pre-transfusion compatibility testing.









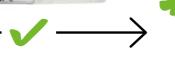
POSITIVE = INCOMPATIBLE DO NOT TRANSFUSE

A negative result between donor RBCs and recipient serum / plasma indicates the absence of alloantibodies in pre-transfusion compatibility testing.



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NEGATIVE = COMPATIBLE SAFE TRANSFUSION

ALSO AVAILABLE IN LABTEST VERSION

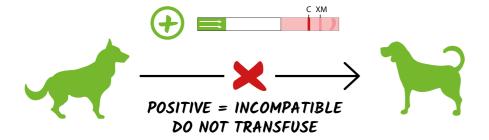




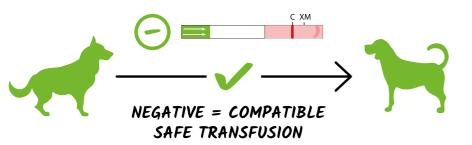


## SCAN OR CODE: Procedure LabTest XM Canine LabTest XM Canine

A positive result between donor RBCs and recipient serum / plasma indicates the presence of alloantibodies in pre-transfusion compatibility testing.



# negative result between donor RBCs and recipient serum / plasma indicates the absence of alloantibodies in pre-transfusion compatibility testing.













### DISCOVER OUR FELINE CROSSMATCHING IMMUNOCHROMATOGRAPHIC TECHNOLOGY

### Importance of feline crossmatching

Cats have one main blood group system named AB system with 3 types: blood type A which is the most frequent, blood type B and blood type AB. The presence of naturally occurring alloantibodies in type A and in type B cats requires that blood typing must be performed prior to ALL blood transfusions to avoid an acute hemolytic transfusion reaction. It is now well established that cats possess other blood group systems such as Mik antigen or other unknown systems.

According to recent publications, it is now highly recommended to perform a Crossmatch Test (XM) in cats before the first transfusion. Indeed, the new studies have shown incompatible XM before the first transfusion between cats having the same blood group due to natural antibodies. These studies also describe incompatible XM Tests few days after the first transfusion that was previously compatible using the same donor, demonstrating a strong allo-immunization against the same donor indicating the existence of other blood group.

### Benefits

### 25 minutes procedure

- All material included
- Time saving
- Easy handling
- Reliable results
- Easy interpretation

### Our technology

**O**ur Feline crossmatch test (major and/or minor) is based on an immuno-chromatographic technology. We have incorporated on a membrane a specific feline antiglobulin that will detect the presence of immunoglobulins (IgG&IgM) and/or C3 components binding to the red blood cells surface (RBCs).

**O**ur Feline crossmatch Test will allow you to pick-up incompatibilities across all feline blood groups (A, B, AB, Mik and other unknown antigens...).

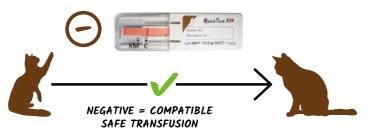


**0**ur Feline crossmatch Test will allow you to pick-up incompatibilities across all feline blood groups (A, B, AB, Mik and other unknown antigens...).

A positive result between donor RBCs and recipient serum / plasma indicates the presence of alloantibodies in pre-transfusion compatibility testing.



A negative result between donor RBCs and recipient serum / plasma indicates the absence of alloantibodies in pre-transfusion compatibility testing.





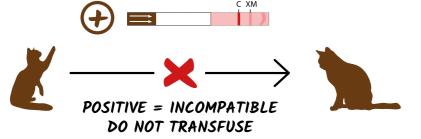




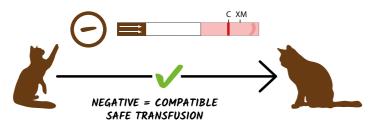




# positive result between donor RBCs and recipient serum / plasma indicates the presence of alloantibodies in pre-transfusion compatibility testing.



A negative result between donor RBCs and recipient serum / plasma indicates the absence of alloantibodies in pre-transfusion compatibility testing.













### DISCOVER OUR ALL IN ONE EMMA TEST FELINE MAJOR & MINOR XM

### Our technology

**7**he NEW Emma Test (Feline XM) Test provides 2 Immunochromatographic strips:

- 1 STRIP for MAJOR XM (Donor RBC + Recipient Plasma/serum)
- 1 STRIP for MINOR XM (Recipient RBC + Donor Plasma/serum)

On each strip, we have incorporated a specific Feline antiglobulin reagent that will detect the presence of immunoglobulins (IgG & IgM) and/or C3 components binding to the red blood cells surface. In pre-transfusion compatibility testing, a positive XM result between donor and recipient will indicate the presence of alloantibodies.



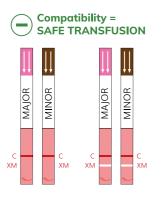


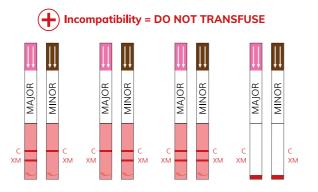
The innovative packaging is based on a benchtop workstation facilitating the test procedure. All material is provided in an individual packaging.

The test procedure can be done in 30 minutes. Results can be interpreted immediately by all operators. The test requires a benchtop centrifuge for the washing procedure only.

The first Feline XM Test that combines high technology and innovative packaging for an easy to use procedure testing.

Our new Feline Crossmatching Test (XM) will allow you to perform MAJOR and MINOR XM at the same time. Blood typing will habe to be done previously on both donor and recipient.













# DISCOVER OUR DIRECT ANTIGLOBULIN TEST IMMUNOCHROMATOGRAPHIC TECHNOLOGY FOR CANINE & FELINE

### Importance of DAT

A Coombs Test or Direct Antiglobulin Test (DAT) is performed to detect the presence of antibodies against red blood cells. It is used in the diagnosis of Immune-Mediated Hemolytic Anemia (IMHA).

### Benefits

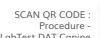
#### 20 minutes procedure

- All material included
- Time saving
- Easy handling
- Reliable results
- Easy interpretationSnap result

### Our technology

The classical technology uses incubation of washed red blood cells suspension with antisera that causes agglutination.

**0**ur immunochromatographic technology will detect the presence of immunoglobulin (IgG & IgM) and/or C3 components binding to the RBC surface. A positive result indicates an in vivo sensitization and can thus be used to indicate the presence of autoimmune antibodies.







SCAN QR CODE:
Procedure Easy QuickTest DAT Canine 

Or Easy QuickTest DAT

A Direct Antiglobulin Test (DAT) or Coombs Test is performed to detect the presence of antibodies against red blood cells. It is used in the diagnosis of Immune-Mediated Hemolytic Anemia (IMHA). IMHA is the most common cause of hemolytic anemia in dogs.

#### There are 2 forms of IMHA:

- The first one is idiopathic IMHA (or primary IHMA) which is probably due to a dysregulation of the immune system.
- The second one (secondary IMHA) is associated with several diseases such as infection diseases (virus, bacteria, parasitic...) or haemopathy or auto immune diseases (lupus). Drug reactions could also induce a secondary IMHA.

### RESULTS

Positive result = Presence of auto-antibodies.

Negative result = Absence of auto-antibodies.















A Direct Antiglobulin Test (DAT) or Coombs Test is performed to **detect the presence of antibodies against red blood cells**. It is used in the diagnosis of Immune-Mediated Hemolytic Anemia (IMHA).

#### There are 2 forms of IMHA:

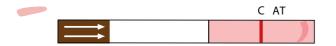
- The first one is idiopathic IMHA (or primary IHMA) which is probably due to a dysregulation of the immune system.
- The second one (secondary IMHA) is associated with several diseases such as infection diseases (virus, FIV, FeLV, bacteria, parasitic...) or haemopathy or auto immune diseases (lupus). Drug reactions could also induce a secondary IMHA. In cats, secondary IMHA is the most common cause.

### RESULTS

Positive result = Presence of auto-antibodies.

Negative result = Absence of auto-antibodies.









# THEY ARE TALKING ABOUT US

«A Ca typing STRIP exhibited 100% sensivity and specificity for the 35 Ca+ and 3 Ca- horses tested.»

Luethy D, et al. - J Vet Intern Med 2016 -

«AB typing using immunochromatographic strip is as accurate as laboratory flow cytometry.»

Goy-Thollot I, J Vet Intern Med 2018 -

«Strip methods are novel and promising simple in-clinic screening tools for IMHA in dogs.»

Caviezel L.L, et al. - | Vet Intern Med 2014 -

«Twenty dogs were DEA 1-, whereas 46 dogs were weakly to strongly DEA 1+. Antigen quantification revealed excellent correlation between strip and flow colorimetry.»

Acierno M.M, et al. - J Vet Intern Med 2014; 28:592-598 -

«The IC technique is an accurate assay for the identification of A, B and AB blood types in anemic and nonanemic feline blood. It has a higher sensitivity and specificity than the CA test, and can be used in samples stored with common anticoagulants or preservative solutions used in feline transfusion medicine.»

Spada E, et al. - Journal of Veterinary Emergency and Critical Care 00(0) 2015, pp1-5 -

«In the presence of persistent autoagglutination, dog erythrocyte antigen (DEA) I.I typing was not possible, except with the immunochromatographic cartridge method.»

Seth M, et al. - AJVR, Vol 73, No. 2, February 2012 -

«The antiglobulin-enhanced immunochromatographic strip kit as well as the antiglobulin-enhanced gel column technique are practical tests for cross-matching in the clinic and laboratory, respectively, and identified alloantibodies on RBCs of some transfused dogs. »

Goy-Thollot I, et al. - | Vet Intern Med 2017 -





### PRODUCT REFERENCES

NAME	CODE	PACKAGING	
QuickTest Blood Typing Canine	QT-BT-C	1 individual test	p 4
QuickTest Blood Typing Feline	QT-BT-F	1 individual test	p 6
QuickTest Blood Typing Equine	QT-BT-E	1 individual test	p 8
LabTest Blood Typing Canine	LT-BT-C	20 tests/tube	p 10
LabTest Blood Typing Feline	LT-BT-F	20 tests/tube	p 12
QuickTest Crossmatch Canine	QT-XM-C	1 individual test	p 16
LabTest Crossmatch Canine	LT-XM-C	5 tests/tube	p 18
QuickTest Crossmatch Feline	QT-XM-F	1 individual test	p 22
LabTest Crossmatch Feline	LT-XM-F	5 tests/tube	p 24
EmMa Crossmatch Test Feline	EM-XM-F	Individual test (Major + Minor)	p 28
Easy QuickTest Antiglobulin Test Canine	EQT-DAT-C	1 individual test	p 32
LabTest Direct Antiglobulin Test Canine	LT-DAT-C	10 tests/box	p 32
Easy QuickTest Antiglobulin Test Feline	EQT-DAT-F	1 individual test	p 34

