

QUICKVET®/RAPIDVET® CANINE DEA 1.1 TEST

FIRST AUTOMATED CANINE DEA 1.1 BLOOD TYPING TEST AVAILABLE

- Fast and convenient 5 minutes test time
- Ease of use Four easy and fast steps to get a result
- Non-ambiguous results Instrument interprets test result
- Clinical advice System offers clinical advice based on result if requested
- State-of-the-art Capillary driven micro fluidic technology
- Blood type certificate Print certificate for owner of dog



QuickVet® test cartridge

Each QuickVet® cartridge, representing state-of-the-art technology, has a label stating what kind of test the cartridge performs, a sample well for adding the diluted plasma, several micro channels and two optical detection windows.

DETERMINE YOUR PATIENTS DEA 1.1 STATUS IMMEDIATELY

The QuickVet®/RapidVet® Canine DEA 1.1 Blood Typing Test allows veterinarians to quickly determine if a canine patient's blood type is DEA 1.1 positive or negative directly in the clinic

The test delivers an answer in less than 5 minutes from adding the diluted blood to the cartridge. Testing is highly automated and result interpretation is done by advanced algorithms ensuring that the user always gets an unambiguous answer. No more need for evaluating agglutinates on a card or judging a red in red line on a strip, just read the result on the screen and act.

HOW TO PERFORM A TEST

Four simple and fast steps are all you need to perform the QuickVet®/ RapidVet® Canine DEA 1.1 Blood Typing Test in your own clinic: **Measure hematocrit** > **Dilute as instructed on screen** > **Add sample to cartridge** > **Read result.**

After 5 min. when the test is completed, the result is presented on the screen of the QuickVet® Analyzer in an unambiguous way, that allows you to take action.

CLINICAL ADVICE

If the blood typing is done as part of a blood transfusion, this sometimes involves a hectic situation where time is of key importance, and many activities are happening at the same time. To aid the user in making the correct transfusion decisions, the analyzer offers optional clinical advice based on the test result at the end of the test.

BLOOD TYPING CERTIFICATE

If the blood typing is done to determine the patient's blood type for future use, the system offers the veterinarian the option to print a blood type certificate that can be given to the owner of the dog, together with a dog tag stating the blood type of the patient.

ADD SAMPLE. READ RESULT

zoetis



DEA 1.1 BLOOD TYPING¹

The practice of veterinary transfusion medicine has undergone tremendous growth in recent years, and as a result the understanding of the importance of identifying blood types has increased. While it is broadly true, that dogs do not possess alloantibodies to incompatible blood groups, and thus will generally tolerate well an initial incompatible transfusion, sound practice of veterinary medicine dictates that such transfusions be avoided. The half life of the transfused incompatible cells will be quite short and, thus, the intended therapeutic result may not even be attained. Also, the potential future needs of the canine patient must be considered. Antibodies resulting from a transfusion of incompatible blood may form in as little as 4 days, and will have long-term viability. This eliminates the option of using incompatible blood in a future emergency situation.

In addition, antibodies developed in bitches by sensitization resulting from transfusion of incompatible blood groups must be of special concern to breeders. Since antibodies are present in the colostrum, bitches with alloantibodies to a given blood type should not be bred to a sire possessing that blood group, if they are expected to nurse the resulting puppies. The nursing puppies will develop isoerythrolysis, and may be susceptible to disease or even die due to hemolytic anemia.

Eight specific antigens have been identified on the surface of the canine erythrocytes and the internationally accepted canine blood group system, the Dog Erythrocyte Antigen (DEA), is based on these antigens (DEA 1.1, 1.2, 3, 4, 5, 6, 7, and 8).

The DEA 1.1 blood group is the most significant blood factor in the dog. The DEA 1.1 blood group is highly antigenic, and is the primary lytic factor in canine transfusion medicine. Although all of the blood group antigens are capable of stimulating formation of alloantibodies, DEA 1.1 has the greatest stimulation potential. Thus most reactions resulting from the transfusion of incompatible cells occur when DEA 1.1 positive blood is given to a DEA 1.1 negative recipient. Clinically significant reactions to DEA 1.2 may occur, but are less severe. DEA 7 may also be a factor in transfusion reactions, but since it is a cold agglutinin and a naturally occurring isoantibody, it is considered to have very low clinical significance. The remaining antigens are considered to cause clinically insignificant transfusion problems.

Ideally, all transfused blood would be DEA 1.1 negative. However, until the concept of using blood rapidly available from commercial sources is more widely accepted, transfusion from dogs that are present in the area at the time of need will remain the norm. It is estimated that 40 % of all dogs are DEA 1.1 positive.

Because a number of dogs auto-agglutinate and because a very anemic dog may give equivocal results, typing prior to an urgent need for the information is indicated. Identifying a particular dog as DEA 1.1 positive or negative at birth greatly simplifies future decision making. A DEA 1.1 positive dog can receive both DEA 1.1 positive and negative blood. A dog that is DEA 1.1 negative should not receive DEA 1.1 positive blood.

THE QUICKVET®/RAPIDVET® DEA 1.1 TEST

Each QuickVet® Test cartridge is labeled with the test type and individually packaged in a sealed pouch with a desiccant. A disposable pipette tip and a vial are supplied with each test. Additionally a dropper bottle with diluent is also supplied with each pack.

- For use with the QuickVet® Analyzer
- Practical one time use only cartridge
- No cleaning or regular maintenance required
- Unambiguous results in 5 min. from adding the blood



Transfusion Medicine in Small Animals. Beth Davidow DVM. Vet Clin Anim 43
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