





ABOUT EUROVETS

EUROVETS IS YOUR COMPLETE VETERINARY SUPPLY & SUPPORT SOLUTION

Eurovets, established in 2001 has become the Middle East's foremost supplier of some of the world's best known veterinary products to veterinary clinics throughout the UAE.

We represent leading multi-national brands in nutrition, veterinary equipment, medicines and consumables for companion, equine and production animals. In addition to the traditional wholesaling, Eurovets provides warehousing, distribution, marketing and sales resources in order to support the product in the region.

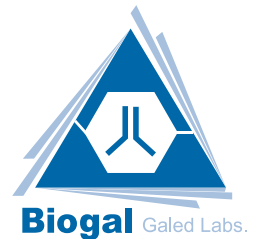
We also offer a host of value-added services such as maintenance and support for all equipment supplied; service-based offerings such as allergy testing; even end-to-end IT solutions for clinics.

Eurovets supports Continued Professional Development, imparting knowledge of the latest developments in the field to veterinary professionals through high-powered seminars.

We pride ourselves on our professional approach and offer vet specialized product advice where required.

In conclusion our mission is to not only deliver excellent products but to be committed to deliver exceptional customer service to all veterinary clinics and pet retailers in the region.

Eurovets YOUR headquarters for veterinary supply and support and a proud distributor of the Biogal brand.



About Biogal

Biogal – Galed Laboratories was established in 1986 and has since been at the forefront of veterinary diagnostic breakthroughs.

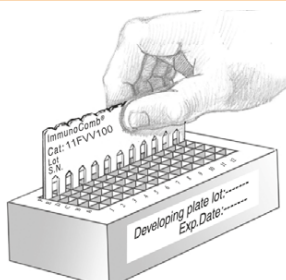
Their mission is to empower veterinarians to improve their pet-patients' health, using innovative diagnostic test kits. They strongly believe that accurate, easy to use and cost-effective diagnostic testing should be within every vet's reach.

As such, Biogal has developed 3 major small animal infectious disease detection product lines – all of which can be performed and analyzed from the comfort of the vet's own clinic. No sample sending to a lab, no nerve-wracking waits, and no extra, associated costs!

VacciCheck is a core vaccine titer test that allows veterinarians to confirm their pet patients' protection and avoid unnecessary over vaccination. Validated against gold standard tests (VN and HI), VacciCheck provides fast, reliable and affordable confirmation of core vaccine immunity for dogs and cats.

VacciCheck is proudly distributed by Eurovets, in the UAE.

Validate before you vaccinate!



INDEX

PAGE

About VacciCheck® Titer Testing	4
VacciCheck® Benefits	5
VacciCheck® Technical Information	6
VacciCheck® Quick Guide	7
VacciCheck® Instruction Manual Canine	8 - 13
VacciCheck® Instruction Manual Feline	14 - 19
CombCam	20
CombCam User Guide	21 - 22

Enter a new age of pet-patient protection with the VacciCheck titer test kit. Using a dot-ELISA-based system and validated against gold standard tests (VN and HI), VacciCheck provides fast, reliable and affordable confirmation of core disease immunity for dogs and cats.

With VacciCheck's novel "in-house" titer testing solution, you can:

- Confirm puppy/kitten immunity following completion of an initial core vaccination series
- Manage disease outbreaks in animal shelters
- Establish the protection status of newly adopted adult dogs/cats with unknown core vaccination history
- Assess adult dog/cat core vaccine immunity, enabling appropriate booster scheduling

CANINE VACCICHECK - INFECTIOUS HEPATITIS, PARVOVIRUS & DISTEMPER IGG ANTIBODY TEST KIT

The Canine VacciCheck Antibody Test Kit is designed to determine dog serum antibody titer to Infectious Canine Hepatitis (ICH), Canine Parvovirus (CPV) and Canine Distemper Virus (CDV). The main purpose of this kit is to provide a useful tool for assessing immunity status of dogs concerning these three pathogens. As such, it can either determine the IgG titer before and following vaccination or the duration of Immunity.

- Species: Dogs
- Client: Vet / Clinic
- Category: Diagnostics > Antibody Test kit



Eurovets Code	Size
E010482	12 tests

FELINE VACCICHECK- PANLEUKOPENIA, HERPES VIRUS & CALICI VIRUS IGG ANTIBODY TEST KIT

The ImmunoComb Feline VacciCheck Test Kit is intended to evaluate the IgG antibody response to vaccination or infection by Feline Panleukopenia (FPLV), Feline Herpes Virus (Rhinotracheitis) (FHV) and Feline Calici Virus (FCV). A high antibody level is associated with immunity to infection (in well cats) and is helpful for diagnosis of clinical cases.

- Species: Cats
- Client: Vet / Clinic
- Category: Diagnostics > Antibody Test kit



Eurovets Code	Size
E010481	12 tests

A revolutionary product

The only in-clinic titer test kit that tests for all 3 core vaccine antigens and compares favorably with Gold Standards. VacciCheck is the only kit on the market approved for use by regulatory authorities such as USDA (USA), CFIA (Canada), Japan (MAFF) and others.

Superior quality

An in-clinic titer test, that obtains laboratory-grade results. Provides semi quantitative serological results simultaneously for the three core canine or feline diseases.

Easy to use, easy to interpret

Test individual patients for up to 12 samples at a time, in six simple steps. Obtain clear and scored results in just 23 minutes. Alternatively, batch test patients for greatest efficiency.

Highly affordable

VacciCheck provides you reliable information about your pet-patients' immunology, without breaking the bank. Testing in-house is more cost effective than sending titer test samples off to a lab, making VacciCheck a leading effective and affordable serological testing solution.

Expand the range of services provided in your practice

You can now handle your clients' increasing awareness about the necessity of routine vaccination and possible side effects by recommending a titer test during the annual health check

Avoiding unnecessary vaccination has never been simpler, with VacciCheck.



Discover a world of superior pet protection, with VacciCheck. All the information you need on the only “in-house” titer test that tests for all 3 core vaccine diseases and compares favorably to Gold Standards.

VacciCheck confirms the following patient antibodies:

Canine	Feline
Infectious Hepatitis (ICH)	Panleukopenia (FPLV)
Parvovirus (CPV)	Herpes Virus (FHV) and (FCV)
Distemper Virus (CDV)	Calici Virus

What VacciCheck does (key test indications):

1. Confirm puppy/kitten immunity following completion of an initial core vaccination course
2. Manage disease outbreaks in animal shelters by enabling proper immunization
3. Establish the protection status of newly adopted adult dogs/cats with unknown core vaccination history
4. Assess adult dog/cat core disease immunity, enabling appropriate booster scheduling

Sampling:

5µL of plasma or serum, or 10µL of blood is used for testing

Canine VacciCheck Performance*:

INFECTIOUS HEPATITIS (ICH)

Specificity: 93% Sensitivity: 94%

PARVOVIRUS (IGG)

Specificity: 100% Sensitivity: 88%

DISTEMPER (IGG)

Specificity: 92% Sensitivity: 100%

Feline VacciCheck Performance*:

PANLEUKOPENIA (IGG)

Specificity: 89% Sensitivity: 98%

CALICI (IGG)

Specificity: 90% Sensitivity: 91%

RHINOTRACHEITIS (IGG)

Specificity: 93% Sensitivity: 96%

Test Time: Results available in 23 minutes

PERFORMING AN ANTIBODY TITER TEST HAS NEVER BEEN EASIER – OR SAFER.

That's where VacciCheck Quick Guide comes in. This guide offers you easily accessible information (4 simple steps) to confirm core disease immunity in dogs and cats.

**VacciCheck®
Quick Guide**

VacciCheck®
Canine
(ICH, CPV, CDV)

STEP 1

PREPARATION



For optimal results bring plate and comb to room temperature
23°C - 25°C / 68°F - 77°F

STEP 2

SAMPLE



Serum or Plasma
5µl



Whole Blood
10µl

STEP 3

PROCEDURE

	ROW	INCUBATION TIME (MIN)
SAMPLE	A	5'
WASH	B	2'
CONJUGATE	C	5'
WASH	D	2'
WASH	E	2'
CHROMOGEN	F	5'
WASH	BACK TO E	2'



- For best results, adhere to time intervals.
- Mixing is critical for valid results. Move the Comb up and down 3-4 times (repeat 2-3 times during each incubation well).
- Soak comb's teeth excess fluid on a paper towel before moving to the next incubation well.
- Read the results when the comb is completely dry.

STEP 4

RESULTS INTERPRETATION

SCORE	RESULT	IMMUNITY STATUS	RECOMMENDATIONS
S0 - S1	Negative	Poor immunity	Vaccination Required
S2	Weak Positive	Adequate Immunity*	The dog will not benefit from repeated vaccination**
S3 - S4	Positive	Good Immunity	
S5 - S6	High Positive	Excellent Immunity	

Positive
Reference

Hepatitis

Parvovirus

Distemper

For core vaccine immunity monitoring

*According to the 2016 WSAVA Guidelines.

**The presence of antibody (no matter what the titre) indicates protective immunity, and immunological memory is present in that animal"

** Giving more frequent vaccines to animals in an attempt to increase antibody titre is a pointless exercise. It is impossible to create 'greater immunity' by attempting to increase an antibody titre.

SUFFICIENT FOR 12/120 ASSAYS

I. INTENDED USE OF THE KIT

The Canine VacciCheck Antibody Test Kit is designed to determine dog serum antibody titer to Infectious Canine Hepatitis (ICH), Canine Parvovirus (CPV) and Canine Distemper Virus (CDV). The main purpose of this kit is to provide a useful tool for assessing immunity status of dogs concerning these three pathogens. As such, it can either determine the IgG titer before and following vaccination or the duration of immunity.

It is highly recommended to test for these three pathogens titer to ensure puppy protection, check wellness and titer level on annual basis before administering a vaccine.

II. GENERAL INFORMATION

Infectious Canine Hepatitis (ICH), Canine Parvovirus (CPV) and Canine Distemper Virus (CDV) are recognized as important causes of illness and death in dogs. Puppies are most susceptible to ICH, CPV and CDV, especially after weaning when protective maternally derived antibody (MDA) levels decrease. Sometimes MDA may actually interfere with vaccinations that are given for immunization.

In many countries, vaccination programs have significantly curtailed, but not eliminated the incidence of these diseases. Thus, ICH, CPV and CDV continue to be of great clinical concern among veterinarians worldwide and still present a diagnostic challenge.

III. WHAT IS THE IMMUNOCOMB ASSAY?

The ImmunoComb test is a modified ELISA, which can be described as an enzyme labeled "dot assay", that detects antibody levels in serum, plasma or whole blood.

The kit contains all the necessary reagents for developing the test. Results for the IgG ICH, CPV and CDV tests are obtained within 23 minutes.

IV. HOW DOES THE IMMUNOCOMB WORK?

- The ImmunoComb Kit contains 2 main components: a comb shaped plastic card, hereafter referred to as the Comb and a multi compartment developing plate.
- The Comb has 12 teeth – sufficient for 12 tests. Each tooth will be developed in a corresponding column of wells in the developing plate. Individual or multiple tests are processed by breaking off the desired number of teeth from the Comb.
- Test spots of ICH, CPV and CDV are attached to each tooth on the Comb. The upper most spot is a Positive Reference. Purified CAV antigen (for ICH testing) is attached to the upper middle spot, purified CPV antigen is attached at the lower middle spot and purified CDV antigen is attached at the lowest of the 4 spots (see figure in section X).
- The first step of the test is to deposit a serum, plasma or whole blood specimen in a well in row A of the multi-compartment developing plate.
- Next, the Comb is inserted into the well(s) with the sample(s) and transferred to the remaining wells (B-F) at timed intervals, according to the step by step instructions (see section VII). Specific IgG antibodies from the specimen, if present, bind to the antigen at the test spots and will be labeled in row C, which contains an enzyme labeled anti-dog IgG antibody.
- At the end of the developing process, a purple-grey color results are developed in all Positive Reference spots and in any positive sample tested spot.
- The intensity of the color result corresponds directly to the antibody level in the test specimen. Results are scored using the Positive Reference spot and CombScale (see section IX).

V. DESCRIPTION OF DISEASE

ICH

Infectious Canine Hepatitis is a disease that is caused by canine adenovirus (CAV). Transmission occurs by direct contact with infected dogs or virus contaminated areas. The first sign is coughing that may progress to pneumonia. Later, when the virus enters the bloodstream, liver, kidney and/or other body organs it may cause clinical signs such as: “blue eye”, vomiting, diarrhea, increased thirst and seizures. Puppies have the highest mortality rate.

CPV

Canine Parvovirus spread of infection can occur via exposure to contaminated surroundings. The clinical signs of CPV include lethargy, depression, inappetence, fever, vomiting and diarrhea (sometimes with blood). Fatalities are common in puppies.

CDV

Canine Distemper Virus is naturally transmitted from dog to dog by aerosol route. Natural CDV infection may cause transient fever that can pass unnoticed. In some cases, when illness develops it is characterized by intermittent fever, depression, ocular-nasal discharge and anorexia. Respiratory and/or gastrointestinal signs may follow. In dogs that survive the acute stages of the disease, many (but not all) will develop central nervous system (CNS) signs, including optic neuritis and retinal lesions. The best known CNS signs are ataxia, paresis and seizures.

VI. DIAGNOSIS:

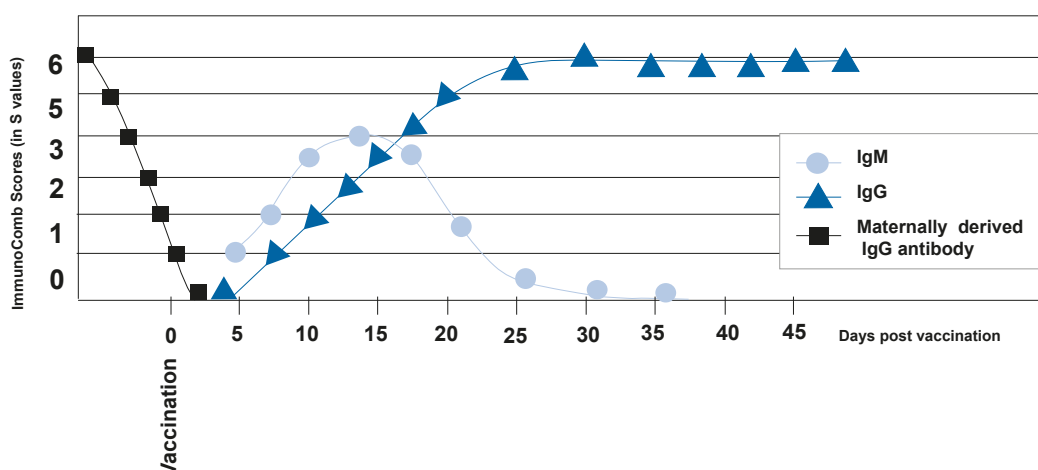
Veterinarians typically make a presumptive diagnosis of ICH, CPV and CDV based on clinical signs which range in severity from mild to severe.

Laboratory tests can be helpful for confirming the diagnosis. In addition to hematology and blood chemistry, serology is becoming a more widely accepted diagnostic tool.

Serology provides a broader picture of the dog's immunologic status. The humoral immune response is largely composed of 2 classes of immunoglobulins (antibodies), IgM and IgG. In the initial days following infection or vaccination, IgM antibodies are produced in large amounts. Later, IgM titers decline while IgG levels increase. Therefore, in dogs that are capable of mounting an immune response, elevated levels of IgM indicate recent infection.

The absence of IgM antibodies with an elevated IgG titer suggests that exposure to the virus occurred earlier and the dog is currently immune. Elevated IgG levels are typically found in dogs that survive the acute phase of infection, following vaccination (Fig. 1) or during the 2nd stage of the disease, when clinical manifestations are absent. (See fig. 1)

Fig. 1 - Post-Vaccination Antibody Levels to ICH, CPV & CDV in Healthy Dogs



VII. STEP BY STEP WITH IMMUNOCOMB

Before conducting the test, bring the developing plate to room temperature by removing all kit components from the kit carton and place them on the work bench for 60-120 minutes or incubate only the plate at 37°C/98.6°F for 25 minutes.

Perform assay at room temperature 20° – 25° C / 68° – 77° F.

(1) Obtain blood sample from dog. When testing whole blood, collect sample in EDTA or heparin anticoagulant tube.

(2) Mix reagents by gently shaking the developing plate several times prior to use. Use the tweezers to pierce the protective aluminum cover of row A. One well for each sample/specimen.

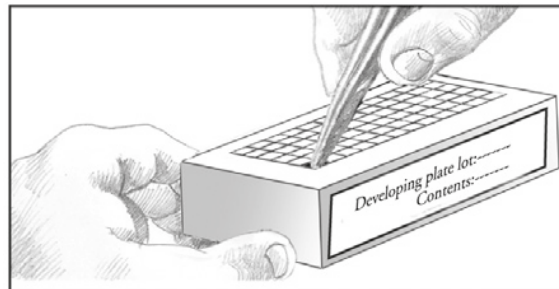
Do not open any wells of row A or other rows which you do not intend to use.

Do not remove aluminum cover of developing plate all at once.

(3) Deposit a sample into a well in row A.

For testing serum or plasma use 5µl.

For testing whole blood use 10µl*.



Raise and lower pipette plunger several times to achieve mixing. (See Pipetting Technique section). Avoid spillage and cross-contamination of solutions.

***For whole blood only: If dispensing the sample with a fix pipette provided with kits catalogue number 50CVV201, use the same tip to deposit twice 5µl into the same well in row A.**

Pipetting Technique

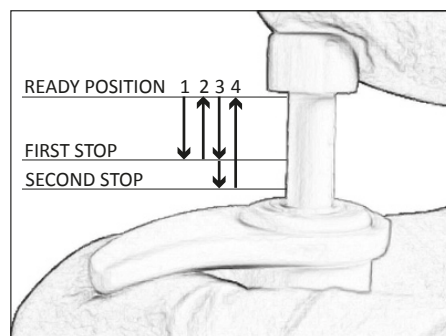
Forward Pippeting

1- Press the operating button to the first stop.

2- Dip the tip attached to the pipette into the sample to a depth of about 1 cm and slowly release the operating button. Wait for a while, then withdraw it from the liquid touching it against the edge of the reservoir to remove excess liquid adhering to the outer surface of the tip.

3- Dispense the sample into a well in row A by gently pressing the operating button to the first stop. After a second, press the operating button to the second stop. This will empty the tip completely. Remove the pipette from the well.

4- Release the operating button to the ready position.



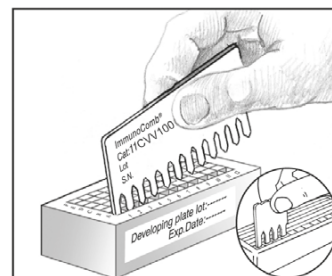
(4) Remove the Comb from its protective envelope. Do not touch the teeth of ImmunoComb card. For testing less than 12 samples, cut or break the Comb by folding in allocated notches for the number of tests required.

Note: Mixing during incubation according to instructions is critical for valid results.

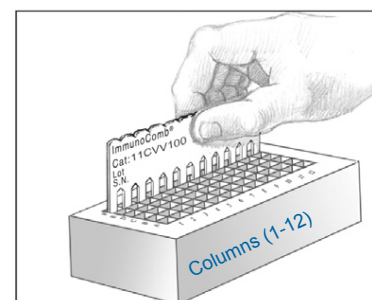
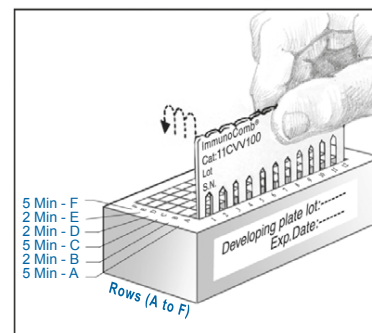
****To improve mixing, move the Comb up and down 3-4 times. During incubation, repeat the same mixing process 2-3 times.**

Avoid scratching the front active side of the Comb by leaning it to the back while mixing.

Gently shake off excess liquid from Comb teeth onto a tissue before moving it to the next row.



- Insert the Comb into the open well(s) in row A (printed side facing you) and incubate for 5 minutes. Mix as described above.**
- Use tweezers to pierce the foil of the next well(s) in row B. Shake off excess liquid and insert Comb for 2 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row C. Shake off excess liquid and insert Comb for 5 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row D. Shake off excess liquid and insert the Comb for 2 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row E. Shake off excess liquid and insert the Comb for 2 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row F. Shake off excess liquid and insert the Comb for 5 minutes. Mix as described above.**
- Upon completion of the color development in row F, move the Comb back to row E for 2 minutes for color fixation. Take the Comb out and let it dry for 5 minutes before reading the results.



VIII. READING AND INTERPRETING THE IgG ANTIBODY RESULTS

- The upper most spot is the Positive Reference spot and it should give a distinct purple-grey color. This is the same color tone that is generated by a significant positive response of anti ICH antibodies at 1:16 VN, anti CPV antibodies at 1:80 titer of HI test or of anti CDV antibodies equal to 1:32 VN. When using the CombScale, this spot should be read as S3 (see section IX).
- The upper middle spot on the Comb gives the result of ICH IgG antibodies in the specimen.
- The lower middle spot on the Comb gives the result of CPV IgG antibodies in the specimen.
- The bottom spot on the Comb gives the result of CDV IgG antibodies in the specimen.
- Compare the color tone of ICH, CPV and CDV test spots with the Positive Reference spot (separately).
- A color tone that is equal or darker than the reference spot is considered a positive response.
- A color tone that matches with S2 is considered a weak positive result.
- A faint color tone of S1 or less is considered a negative result.
- A test spot with a washed blue appearance is invalid. Refer to Biogal for further advice.
- To evaluate the antibodies score use the CombScale provided in the kit (see section IX).
- The dry Comb may be kept as record.

IX. READING RESULTS WITH THE COMBSCALE

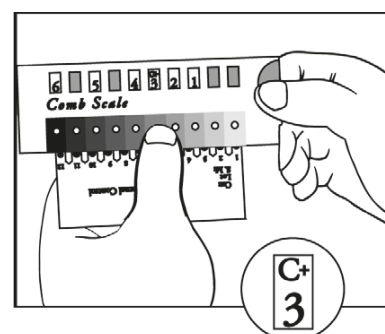
The CombScale S value is the number that appears in the yellow window corresponding to the color tone, when Positive Reference color is calibrated to S3.

When the Comb is completely dry, align it with the calibrated color Comb-Scale provided in the kit.

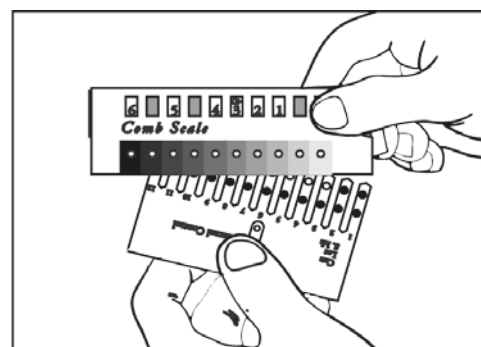
Find the tone of purple-grey on the CombScale that most closely matches the **Positive Reference spot** (upper spot). Slide the yellow ruler until the C+ mark appears in the window above that color you just found.

Hold the ruler in this position during the entire reading.

This step actually calibrates the C+ to S3, which is the “cut-off” point to which test spots will be compared.

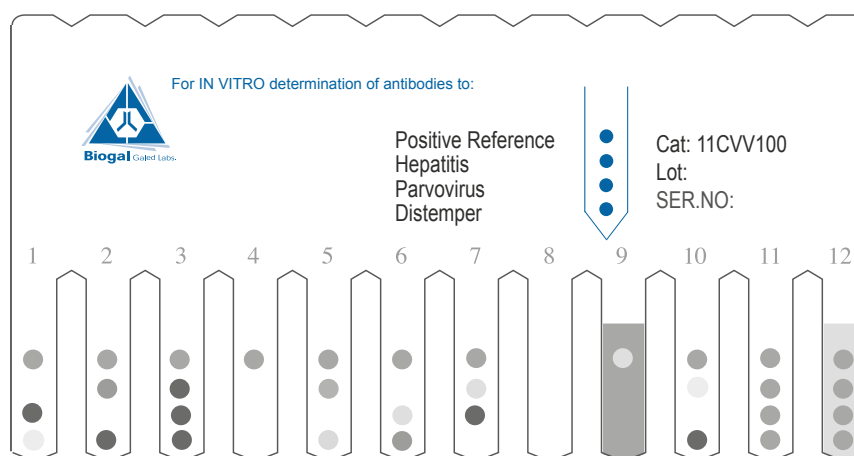


While holding the ruler, find the tone of purple-grey on the CombScale that most closely matches the desired **test result spot** (one of the lower spots). The number that appears in the window above is the CombScale score (S0-S6). Repeat this step with every test spot separately.



Another way to read the results is by using the CombScan. This is a software program that utilizes a computer and a TWAIN compatible scanner. When a Comb is placed on the scanner, the program translates the color results into numerical values. The CombScan assists labs in reading ImmunoComb results and conserving the data, and is supplied free of charge upon request

X. EXAMPLE OF A DEVELOPED COMB



Tooth No	ICH RESULTS		CPV RESULTS		CDV RESULTS	
1	S0	Negative	≥S5	High pos.	<S1	Negative
2	S4	Positive	S0	Negative	S6	High pos.
3	≥S5	High pos.	≥S5	High pos.	≥S5	High pos.
4	S0	Negative	S0	Negative	S0	Negative
5	≥S3	Positive	S0	Negative	S2	*Weak pos.
6	S0	Negative	S2	*Weak pos.	S4	Positive
7	S2	*Weak pos.	≥S5	High pos.	S0	Negative
8**		Invalid		Invalid		Invalid
9***		Invalid		Invalid		Invalid
10	<S1	Negative	S0	Negative	≥S5	High pos.
11	≥S3	Positive	≥S3	Positive	≥S3	Positive
12****	≥S3	Positive	≥S3	Positive	≥S3	Positive

Remarks:

*Considered inconclusive in case of disease suspicion.

**No Positive Reference. Repeat test.

***High background. Repeat test.

****High background with positive results.

XI. STORAGE & HANDLING

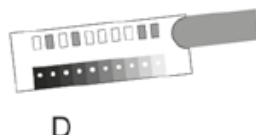
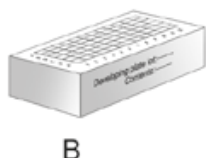
1. Store the kit under normal refrigeration (2° – 8° C / 36° – 46° F). **Do not freeze the kit.**
2. **Do not mix reagents from different kits or from different compartments of the same kit.**
3. The ImmunoComb kit contains inactivated biological material. The kit must be handled and disposed of in accordance with accepted sanitary requirements.

XII. SAMPLE HANDLING AND STORAGE

- Fresh samples are recommended for use
- Store whole blood at 2-8°C if the test is to be run within 1 day of collection. Do not freeze whole blood samples.
- Store serum and plasma samples at 2-8°C if the test is to be run within 3 days of collection. If test is delayed more than 3 days, freeze samples to -20°C or colder.
- Bring samples to room temperature and mix well before testing.

XIII. KIT CONTENTS

Components	12 Test Kit (50CVV201)	12 Test Kit (50CVV401)	120 Test Kit (50CVV110)
A. ImmunoComb card (wrapped in aluminum foil)	1	1	10
B. Developing plate	1	1	10
C. Disposable tweezers	1	1	1
D. Calibrated CombScale	1	1	1
E. Junior fix pipette 5µl	1	-	-
F. 10 µl universal grad tip	15	-	-
Instruction manual	1	1	1



SUFFICIENT FOR 12/120 ASSAYS

I. INTENDED USE OF THE KIT

This kit is designed to determine cat serum IgG antibody titer to Feline Panleukopenia Virus (FPLV), Feline Herpes Virus (FHV) and Feline Calici Virus (FCV). The main purpose of this kit is to provide a useful tool for assessing immunity status of cats concerning these three pathogens. As such, it can either determine the IgG titer before and following vaccination or the validation of immunity.

II. GENERAL INFORMATION

Feline Panleukopenia Virus (FPLV), Feline Herpes Virus (FHV) and Feline Calici Virus (FCV) are recognized as important causes of illness and death in cats. Kittens are most susceptible to FPLV, FHV and FCV, especially after weaning when protective Maternally Derived Antibody (MDA) levels decrease. Sometimes MDA may actually interfere with vaccinations that are given for immunization.

In many countries, vaccination programs have significantly curtailed, but not eliminated the incidence of these diseases. Thus, FPLV, FHV and FCV continue to be of great clinical concern among veterinarians worldwide and still present a diagnostic challenge.

III. WHAT IS THE IMMUNOCOMB ASSAY?

The ImmunoComb test is a modified ELISA, which can be described as an enzyme labeled “dot assay”, that detects antibody levels in serum, plasma or whole blood.

The kit contains all the necessary reagents for developing the test. Results for the IgG FPLV, FHV and FCV tests are obtained within 23 minutes.

IV. HOW DOES THE IMMUNOCOMB WORK?

- The ImmunoComb Kit contains 2 main components: a comb shaped plastic card, hereafter referred to as the Comb and a multi compartment developing plate.
- The Comb has 12 teeth – sufficient for 12 tests. Each tooth will be developed in a corresponding column of wells in the developing plate. Individual or multiple tests are processed by breaking off the desired number of teeth from the Comb.
- Test spots of FPLV, FHV and FCV are attached to each tooth on the Comb. The upper most spot is a Positive Reference. Purified FPLV antigen is attached to the upper middle spot, purified FHV antigen is attached at the lower middle spot and purified FCV antigen is attached at the lowest of the 4 spots (see figure in section X).
- The first step of the test is to deposit a serum, plasma or whole blood specimen in a well in row A of the multi-compartment developing plate.
- Next, the Comb is inserted into the well(s) with the sample(s) and transferred to the remaining wells (B-F) at timed intervals, according to the step by step instructions (see section VII). Specific IgG antibodies from the specimen, if present, bind to the antigen at the test spots and will be labeled in row C, which contains an enzyme labeled anti-cat IgG antibody.
- At the end of the developing process, a purple-grey color results are developed in all Positive Reference spots and in any positive sample tested spot.
- The intensity of the color result corresponds directly to the antibody level in the test specimen. Results are scored using the Positive Reference spot and CombScale (see section IX).

V. DESCRIPTION OF DISEASE

Feline Panleukopenia (FPLV also known as Distemper or Feline infectious enteritis) is a highly contagious viral disease that can kill both kittens and unvaccinated adult cats. Symptoms include sudden onset of fever, lack of appetite, dehydration, depression, vomiting and dizziness. Infected cats may show a decreased number of whole blood cells.

Feline Herpes virus is caused by FHV type 1, also known as Feline Viral Rhinotracheitis.

Symptoms include sneezing, coughing, photosensitivity, conjunctival swelling, ocular and nasal discharge. Also seen is: fever, depression and lack of appetite. Corneal ulcers may develop, which can lead to severe infections and even blindness.

Feline Calici virus is a respiratory disease similar to a human cold. It is caused by an RNA virus and is more resistant than FHV although its symptoms may appear less severe. Symptoms are similar to FHV but often include ulcers of the tongue. Pneumonia may develop, leading to high mortality rates in kittens.

VI. DIAGNOSIS:

Diagnosis of FPLV, FHV and FCV is often made based on clinical signs. Some of the signs are common to the two or three diseases.

Laboratory tests can be helpful for confirming the diagnosis. In addition to hematology and blood chemistry, serology is becoming a more widely accepted diagnostic tool.

Serology, by measuring the amount of specific IgG antibodies circulating in the blood, provides the mean to monitor a cat's immunity status following infection and or vaccination. Proper vaccination of kittens and cats will allow them to be protected against severe feline infectious diseases. Yet, since vaccinations does not always confer proper immunity and over-vaccination is not recommended, it is advisable to monitor the serological status of the cat in order to only vaccinate when necessary.

VII. STEP BY STEP WITH IMMUNOCOMB

Before conducting the test, bring the developing plate to room temperature by removing all kit components from the kit carton and place them on the work bench for 60-120 minutes or incubate only the plate at 37°C/98.6°F for 25 minutes.

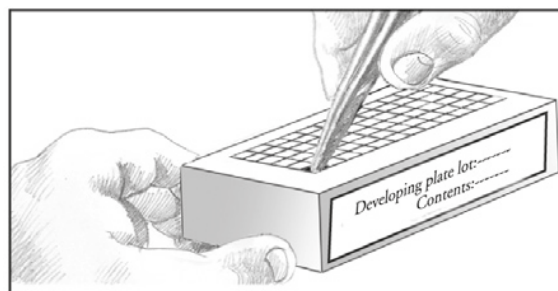
Perform assay at room temperature 20° – 25° C / 68° – 77° F.

(1) Obtain blood sample from cat. When testing whole blood, collect sample in EDTA or heparin anticoagulant tube.

(2) Mix reagents by gently shaking the developing plate several times prior to use. Use the tweezers to pierce the protective aluminum cover of row A. One well for each sample/specimen.

Do not open any wells of row A or other rows which you do not intend to use.

Do not remove aluminum cover of developing plate all at once.



(3) Deposit a sample into a well in row A.

For testing serum or plasma use 5µl.

For testing whole blood use 10µl*.

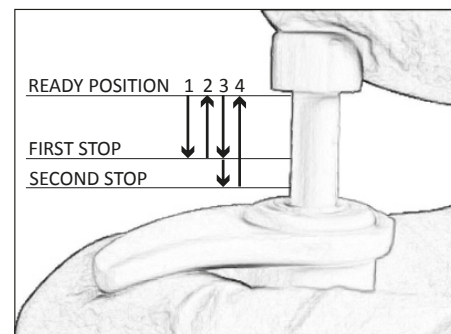
Raise and lower pipette plunger several times to achieve mixing. (See Pipetting Technique section). Avoid spillage and cross-contamination of solutions.

***For whole blood only: If dispensing the sample with a fix pipette provided with kits catalogue number 50FVV201 , use the same tip to deposit twice 5µl into the same well in row A.**

Pipetting Technique

Forward Pippeting

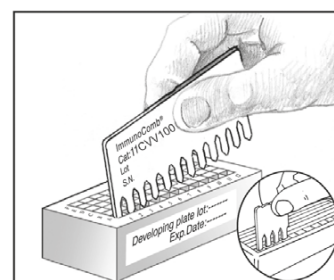
- 1- Press the operating button to the first stop.
- 2- Dip the tip attached to the pipette into the sample to a depth of about 1 cm and slowly release the operating button. Wait for a while, then withdraw it from the liquid touching it against the edge of the reservoir to remove excess liquid adhering to the outer surface of the tip.
- 3- Dispense the sample into a well in row A by gently pressing the operating button to the first stop. After a second, press the operating button to the second stop. This will empty the tip completely. Remove the pipette from the well.
- 4- Release the operating button to the ready position.



(4) Remove the Comb from its protective envelope. Do not touch the teeth of Immuno-Comb card. For testing less than 12 samples, cut or break the Comb by folding in allocated notches for the number of tests required.

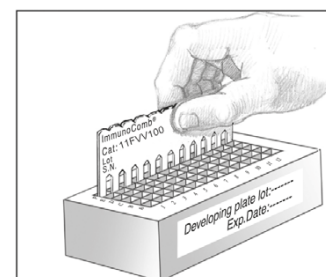
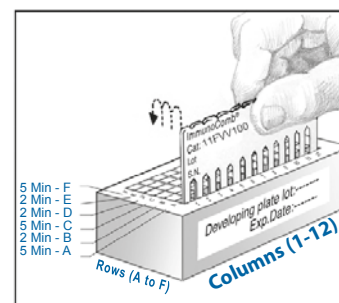
Note: Mixing during incubation according to instructions is critical for valid results.

****To improve mixing, move the Comb up and down 3-4 times. During incubation, repeat the same mixing process 2-3 times.**



Avoid scratching the front active side of the Comb by leaning it to the back while mixing. Gently shake off excess liquid from Comb teeth onto a tissue before moving it to the next row.

- Insert the Comb into the open well(s) in row A (printed side facing you) and incubate for 5 minutes. Mix as described above.**
- Use tweezers to pierce the foil of the next well(s) in row B. Shake off excess liquid and insert Comb for 2 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row C. Shake off excess liquid and insert Comb for 5 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row D. Shake off excess liquid and insert the Comb for 2 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row E. Shake off excess liquid and insert the Comb for 2 minutes. Mix as described above.**
- Pierce the foil of the next well(s) in row F. Shake off excess liquid and insert the Comb for 5 minutes. Mix as described above.**
- Upon completion of the color development in row F, move the Comb back to row E for 2 minutes for color fixation. Take the Comb out and let it dry for 5 minutes before reading the results.



VIII. READING AND INTERPRETING THE IgG ANTIBODY RESULTS

- The upper most spot is the Positive Reference spot and it should give a distinct purple-grey color. This is the same color tone that is generated by a significant positive response of anti FPLV antibodies at 1:80 HI, anti FHV antibodies at 1:16 titer of VN test or of anti FCV antibodies equal to 1:32 VN. When using the CombScale, this spot should be read as S3 (see section IX).
- The upper middle spot on the Comb gives the result of FPLV IgG antibodies in the specimen.
- The lower middle spot on the Comb gives the result of FHV IgG antibodies in the specimen.
- The bottom spot on the Comb gives the result of FCV IgG antibodies in the specimen.
- Compare the color tone of FPLV, FHV and FCV test spots with the Positive Reference spot (separately).
- A color tone that is equal or darker than the reference spot is considered a positive response.
- A color tone that matches with S2 is considered a weak positive result.
- A faint color tone of S1 or less is considered a negative result.
- To evaluate the antibodies score use the CombScale provided in the kit (see section IX).
- A test spot with a washed blue appearance is invalid. Refer to Biogal for further advice.
- The dry Comb may be kept as record.

IX. READING RESULTS WITH THE COMBSCALE

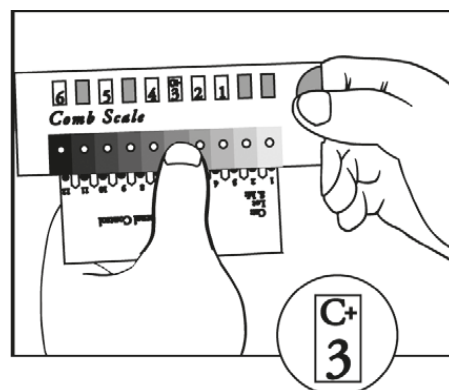
The CombScale S value is the number that appears in the yellow window corresponding to the color tone, when Positive Reference color is calibrated to S3.

When the Comb is completely dry, align it with the calibrated color Comb-Scale provided in the kit.

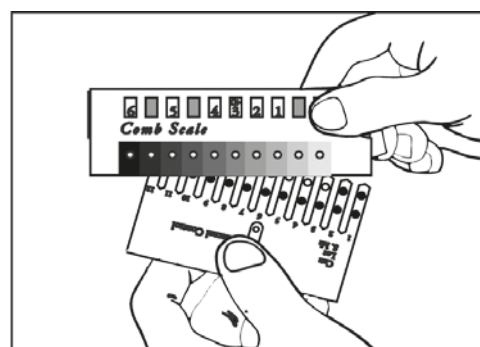
Find the tone of purple-grey on the CombScale that most closely matches the **Positive Reference spot** (upper spot). Slide the yellow ruler until the C+ mark appears in the window above that color you just found.

Hold the ruler in this position during the entire reading.

This step actually calibrates the C+ to S3, which is the “cut-off” point to which test spots will be compared.

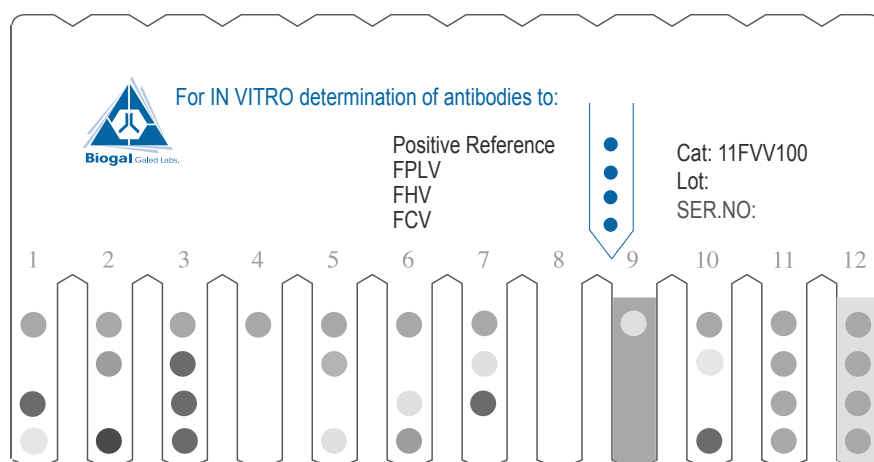


While holding the ruler, find the tone of purple-grey on the CombScale that most closely matches the desired **test result spot** (one of the lower spots). The number that appears in the window above is the CombScale score (S0-S6). Repeat this step with every test spot separately.



Another way to read the results is by using the CombScan. This is a software program that utilizes a computer and a TWAIN compatible scanner. When a Comb is placed on the scanner, the program translates the color results into numerical values. The CombScan assists labs in reading ImmunoComb results and conserving the data, and is supplied free of charge upon request.

X. EXAMPLE OF A DEVELOPED COMB



Tooth No	FPLV RESULTS		FHV RESULTS		FCV RESULTS	
1	S0	Negative	≥S5	High pos.	<S1	Negative
2	S4	Positive	S0	Negative	S6	High pos.
3	≥S5	High pos.	≥S5	High pos.	≥S5	High pos.
4	S0	Negative	S0	Negative	S0	Negative
5	≥S3	Positive	S0	Negative	S2	*Weak pos.
6	S0	Negative	S2	*Weak pos.	S4	Positive
7	S2	*Weak pos.	≥S5	High pos.	S0	Negative
8**		Invalid		Invalid		Invalid
9***		Invalid		Invalid		Invalid
10	<S1	Negative	S0	Negative	≥S5	High pos.
11	≥S3	Positive	≥S3	Positive	≥S3	Positive
12****	≥S3	Positive	≥S3	Positive	≥S3	Positive

Remarks:

*Considered inconclusive in case of disease suspicion.

**No Positive Reference. Repeat test.

***High background. Repeat test.

****High background with positive results.

XI. STORAGE & HANDLING

1. Store the kit under normal refrigeration (2° – 8° C / 36° – 46° F). **Do not freeze the kit.**
2. **Do not mix reagents from different kits or from different compartments of the same kit.**
3. The ImmunoComb kit contains inactivated biological material. The kit must be handled and disposed of in accordance with accepted sanitary requirements.

XII. SAMPLE HANDLING AND STORAGE

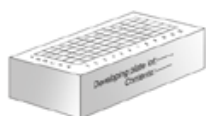
- Fresh samples are recommended for use
- Store whole blood at 2-8°C if the test is to be run within 1 day of collection. Do not freeze whole blood samples.
- Store serum and plasma samples at 2-8°C if the test is to be run within 3 days of collection. If test is delayed more than 3 days, freeze samples to -20°C or colder.
- Bring samples to room temperature and mix well before testing.

XIII. KIT CONTENTS

Components	12 Test Kit (50CVV201)	12 Test Kit (50CVV401)	120 Test Kit (50CVV110)
A. ImmunoComb card (wrapped in aluminum foil)	1	1	10
B. Developing plate	1	1	10
C. Disposable tweezers	1	1	1
D. Calibrated CombScale	1	1	1
E. Junior fix pipette 5µl	1	-	-
F. 10 µl universal grad tip	15	-	-
Instruction manual	1	1	1



A



B



C



D



E



F

CombCam

CombCam

Biogal's CombCam is an automated reading device that objectively reads VacciCheck / ImmunoComb Antibody Tests. The CombCam makes the reading of VacciCheck / ImmunoComb results simple, faster, digitalized and more accurate.



Species:	Cats / Dogs
Client:	Vet / Clinic
Category:	Diagnostics> Antibody Test kit

Eurovets Code

Size

E010483

1 Pc

Key Benefits of CombCam

- Hand sized, user friendly reader.
- Reads individually one tooth at a time.
- Result displayed after 3 seconds.
- Test results can be copied to a PC or a laptop for electronic documentation.
- "Electronic Eye" reads ImmunoComb/ VacciCheck semi quantitatively.

Read the results in three simple steps



Step 01

Use appropriate RFID card with CombCam



Step 02

Insert ImmunoComb or VacciCheck Tooth



Step 03

Read Result via CombCam Cube or PC Software

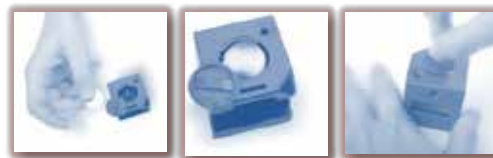
CombCam is available for:

Canine VacciCheck (CAV-CPV-CDV)
Feline VacciCheck (FPV-FHV-FCV)

The CombCam is a portable measuring device for semi-quantitative evaluation of the Biogal ImmunoComb test kits. Being a portable platform, the CombCam offers an internal memory to save a large number of measurement results. If you wish to, you can extract the data appearing on the CombCam screen and save it on your PC.

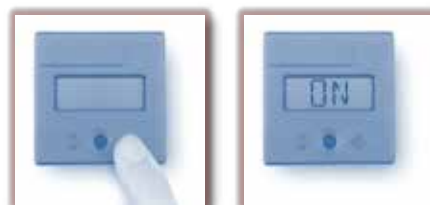
1. Installation

- ✓ Insert three **3V batteries** (coin cells) and close battery compartment.
- ✓ Alternatively use the provided **USB cable** and a wall socket power adapter as alternative power source.
- ✓ Make sure the appropriate provided **RFID card** is at hand.
- ✓ Make sure that the **Tooth Adapter** (white) is at the bottom of the **CombCam**.



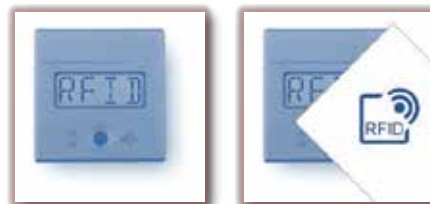
2. Measurement

- ✓ Run the ImmunoComb/VacciCheck test according to the Kit's Manual Instruction.
- ✓ Wait for the complete drying of the Tooth/Teeth.
- ✓ If multiple teeth were tested, cut out the individual tooth at the allocated notch at the back of the Comb using scissors.
- ✓ Switch on the **CombCam** with a short press on the button. (< 1s).
- ✓ The **CombCam** shows ON.

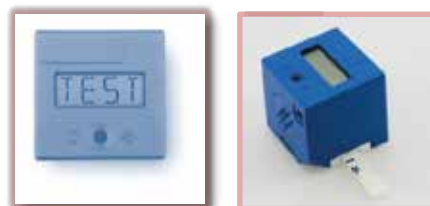


- ✓ Press the button again, the **CombCam** shows **RFID**.
- ✓ Put test **RFID card** on top of the **CombCam** and wait for audible signal (Beep) as acknowledgement of the transmission.

Note: Make sure the correct RFID matches the corresponding Immuno-Comb/VacciCheck kit. After the **CombCam** is activated with the **RFID card**, multiple teeth of the same kit can be read while skipping the RFID step by pressing the button until **TEST** appears.



- ✓ The **CombCam** shows **TEST**.
- ✓ Insert the Tooth, spots facing up, into the white adapter all the way in.
- ✓ Start measurement with a short press on the button. (< 1s).



- ✓ The **CombCam** shows **RUN** and after a few seconds the result.
- ✓ **Note:** Ensure that the results match the visual appearance.
- ✓ Refer to the Kit's instructions for results' interpretation.
- ✓ Results are saved automatically on the **CombCam**.
- ✓ The **CombCam** turns off by itself after 50 seconds of inactivity.



3. Data Management

Result data saved on the **CombCam** can be accessed with the **CombCam Viewer** software.

In order to extract the measurement data from the CombCam the CombCam Viewer is provided. Using this software, it is possible to read every saved measurement, to transfer it to a pc and general data management functions. Furthermore, the software allows direct operation and recording of measurements.

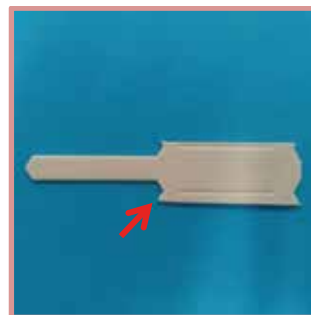
- ✓ Install the software on a PC from the download link or file provided by Biogal.
- ✓ Use the provided **USB cable** to connect the **CombCam** to the PC (installed drivers will be configured).
- ✓ Start the software to access data from the **CombCam** database.
- ✓ For multiple test reading, use the software with the **CombCam** connected.
- ✓ Refer to the **CombCam Viewer** Manual for detailed information on using the various software features.

4. Troubleshooting

Correct cut of the Tooth:
At the notch lines between teeth.



Incorrect cut of the Tooth:
Avoid protruding dents



Correct insertion of the Tooth



Incorrect insertion of the Tooth.



Problems	Possible causes	Solutions
The CombCam does not react when pressing the button	Batteries not in place or empty	Replace batteries. The CombCam can be operated without batteries using the provided USB cable connected to power plug or computer.
The result shows incorrect dis-ease names	Incorrect RFID was used	Read again with the RFID that matches the kit in use.
The resulting scores don't match the visual reading by more than one unit (+/- 1)	The tooth was not inserted completely into the adapter	Insert the tooth into the adapter all the way in and read again.

NOTES

[illegible]

WHY EUROVETS?



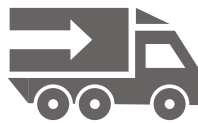
IMPORTER

Source and import the highest quality products to meet the needs of veterinary, equine and camel markets across the GCC region.



SEMINARS AND CPD EVENTS

Continuing professional development (CPD) seminars and events deliver relevant, practical knowledge for veterinarians and healthcare professionals.



LOGISTICS, FLEET AND DISTRIBUTION

Temperature-controlled vehicle fleet and state-of-the-art inventory management system.



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Temperature-controlled warehouses.



BRAND MANAGEMENT & MARKETING

Digital & traditional marketing support for the brands and products we represent.



AFTERMARKET SOFTWARE AND SUPPORT

In-house technical field support team provides onsite installation, staff training, equipment maintenance and software updates.

Eurovets YOUR complete veterinary Supply and Support SOLUTION.



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