Version 12-04/24

User's Manual

Canine Parvovirus ELISA Kit

REF **DEIA-VT004**

Σ **96T**

RUO

This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

Creative Diagnostics

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PRODUCT INFORMATION

Intended Use

The Canine Parvovirus ELISA is intended for the qualitative determination of antibodies against Canine Parvovirus in veterinary serum.

General Description

The canine parvovirus (CPV) infection is a highly contagious viral illness that affects dogs. Parvoviruses are single-stranded DNA viruses with a genome of about 5000 nucleotides. They are one of the smallest known viruses. Without envelope they have a diameter of about 20-25 nm. They show a high physical stability. The capsid is highly resistant and the virions can remain infectious for months to years.

The virus manifests itself in two different forms. The more common form is the intestinal form, which is characterized by vomiting, diarrhea, weight loss, and lack of appetite (anorexia). The less common form is the cardiac form, which attacks the heart muscles of very young puppies, often leading to death. Parvovirus is excreted in the feces. The most common mode of transmission is indirectly. The viruses are taken up oronasal from the contaminated environment or contaminated litter. They are transported via the lymphatic cells of the pharynx in almost all organs. Replication occurs preferably in lymphocytic cells.

During replication, the host cell is destroyed. Via the epithelial cells the virus is transported in the intestinal lumen and is then excreted within the feces. The majority of cases are seen in puppies that are between six weeks and six months old.

Principles of Testing

The qualitative immunoenzymatic determination of antibodies against Canine Parvovirus is based on the ELISA (Enzyme-linked Immunosorbent Assay) technique. Microtiter strip wells are precoated with Canine Parvovirus antigens to bind corresponding antibodies of the specimen. After washing the wells to remove all unbound sample material horseradish peroxidase (HRP) labelled Protein A/G conjugate is added. This conjugate binds to the captured Canine Parvovirus specific antibodies. The immune complex formed by the bound conjugate is visualized by adding Tetramethylbenzidine (TMB) Substrate Solution which gives a blue reaction product. The intensity of this product is proportional to the amount of Canine Parvovirus specific antibodies in the specimen. Sulphuric acid is added to stop the reaction. This produces a yellow endpoint colour. Absorbance at 450 nm is read using an ELISA microwell plate reader.

Storage

2-8 °C

Specificity

Cross-reactions with closely related pathogens cannot be excluded.

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