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Diagnostic techniques for canine distemper

犬瘟热诊断技术

(English Translation)

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Foreword

Appendix A of this standard is a normative appendix.

This standard is proposed and managed by the Animal Husbandry and Veterinary Bureau of the Ministry of Agriculture.

This standard was drafted. Veterinary Diagnostic Center of the Ministry of Agriculture.

1 Scope

This standard specifies the clinical diagnosis of canine distemper (CD), isolation and identification of canine distemper virus (CDV), immunoenzyme test and immunoenzyme group.

Diagnostic techniques such as weaving chemical methods.

This standard applies to the diagnosis of canine distemper.

2.1 Clinical symptoms

The clinical manifestations of CD are diverse and related to the virulence of CDV, environmental conditions, age, variety and immune status of the host. Sick dog body the temperature rises above 40 °C, the nasal flow clears to purulent nasal juice, purulent eyelids, cough, shortness of breath and other symptoms of pneumonia.

rash. Long-term canine foot pillow horny layer hyperplasia. When the CDV invades the brain in the later stage of the disease, there are neurological symptoms, convulsions in the head, neck and limbs.

2.2 Pathological changes

CDV is a pan-tropic virus with a specific affinity for epithelial cells, so the lesions are widely distributed. Newborn puppies infected with CDV Often showing thymus atrophy. Adult dogs often present with conjunctivitis, rhinitis, tracheobronchitis and catarrhal enteritis. Dogs that exhibit neurological symptoms are usually See skin keratosis of the nose and foot pads. Gross lesions of the central nervous system include meningeal congestion, ventricular dilatation, and cerebral edema due to cerebral edema the liquid increases.

The inclusion bodies of CDV are usually eosinophilic, located in the cytoplasm, ranging from 1 μm to 5 μm in diameter, and can be found in mucosal epithelial cells, reticulocytes, and white fine cells.

Found in cells, glial cells and neurons. The inclusion bodies in the nucleus are mostly located in the coated epithelial cells, glandular epithelial cells and ganglion cells.

3.1.1 Reagents

3.1.1.1

Improve the minimum element nutrient solution (DMEM) medium, see formula A. Chapter 1.

3.1.1.2

African green monkey kidney cells (Vero cells).

3.1.1.3

Standard positive serum. CDV monoclonal antibody, neutralizing antibody titer 1.1024.

3.1.1.4

Standard negative serum. Canine serum without CDV infection.

3.1.1.5

Newborn bovine serum treatment. Wash the cells twice with serum-free DMEM and add one-half of the amount of newborn bovine serum to the culture medium.

Adsorption at 37 ° C for 1 h. The adsorbed newborn bovine serum was dispensed and placed at -20 ° C for use.

3.1.1.6

Penicillin, streptomycin.

3.1.2 Equipment

a) cell culture flask;

b) a straw;

- c) a carbon dioxide incubator;
- d) 37 ° C constant temperature water bath;
- e) ordinary refrigerators and low temperature refrigerators;
- f) centrifuges and centrifuge tubes;
- g) grinding equipment;
- h) ordinary optical microscope;