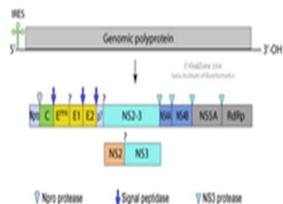


Product Data Sheet

| | | |
|---|--|--------------|
| <input type="checkbox"/> Cat # CSFR21-M | Mouse anti-Classical Swine Fever Virus monoclonal antibody | Size: 100 ug |
| <input type="checkbox"/> Cat # CSFR31-M | Mouse anti-Classical Swine Fever Virus monoclonal antibody | Size: 100 ug |

Classical swine fever (CSF) or hog cholera virus (HCV) is a highly contagious disease of pigs and wild boars. CSF causes fever, skin lesions, convulsions and usually (particularly in young animals) death within 15 days. The disease is endemic in much of Asia, Central and South America, and parts of Europe and Africa. United States, UK, Australia, Canada, Ireland, New Zealand and Scandinavia are believed to largely free from CSF disease, but the virus can periodically be reintroduced via wild boars which may constitute a reservoir. CSFV leads to important economic losses worldwide. Despite the fact that preventive vaccination is prohibited, EU regulations allow the use of emergency vaccinations with MLV or marker vaccines. Highly virulent (HV) strains cause an acute hemorrhagic form of the disease that induces marked immune suppression and high mortality, whereas moderately virulent (MV) strains induce either a sub-acute or a chronic form of the disease from which pigs may recover.

The infectious agent responsible is a virus CSFV of the genus Pestivirus in the family Flaviviridae. CSFV is closely related to the ruminant pestiviruses which cause Bovine Viral Diarrhea (BVDV) and Border Disease (BDV). There is only one serotype of CSF virus (CSFV). Detection of virus or viral nucleic acid in whole blood and of antibodies in serum are the methods of choice for diagnosing CSF in live pigs, whereas detection of virus, viral nucleic acid or antigen in organ samples is most suitable when the pig is dead.



The CSFV genome (~12.5 kb) contains a single large open reading frame coding for a polyprotein (~4,000 aa) that is cleaved co- and post-translationally by cellular and viral proteases into structural proteins (SP) Capsid C (p14), Envelop glycoprotein Erns (gp44-48), E1 (gp33), and E2 (gp55) and nonstructural proteins (NSP) NS2 (cysteine protease), NS3 (serine protease), NS4A, NS4B, NS5A, and NS5B. The E2 glycoprotein is the most immunogenic CSFV protein.

Vaccines against CSF are based on modified live virus (MLV) that has been attenuated by passage through cell cultures. Additionally, vaccines based on Japanese viral strain "guinea pig exultation-negative (GPE-)", the "Thiverval" strain and the "Mexican PAV" strain, have been used. However, vaccinated animals cannot be distinguished from infected animals by serological diagnostic tests. Recombinant protein based CSFV E2 vaccine have also been introduced but they are less effective than MLV vaccines. A new generation of marker vaccine candidates based on chimeric pestiviruses has been developed in order to combine the DIVA strategy with good efficacy. CSFV E2 antibody ELISA is used for conventional screening tests for the detection of CSFV infection on a herd basis. CSF Erns antibody ELISA is used as DIVA test for CSFV E2 subunit vaccines.

Form & storage of Classical Swine fever virus antibodies

Immunogen: Inactivated Classical Swine Fever Virus

Purity: >90% (by SDS-PAGE)

Purified Mouse IgG antibody

Solution

Supplied in PBS, pH 7.4 +0.02% sodium azide

Lyophilized Reconstitute powder in sterile water to a concentration of 0.5-1 mg/ml.

Storage

Short-term: 1 month at 4°C.

Long-term: at -20°C or below in suitable aliquots after reconstitution. Can be frozen, but avoid multiple freeze/thaw cycles

Stability: 24 months at -20°C or below.

Recommended Usage:

Lateral Flow: Assay dependent concentration

ELISA: Assay dependent concentration

CSFR21-M is recommended as a capture antibody with CSFR31-M as a detection antibody

This product is for in vitro research use only.

Related Material available for ADI

| Catalog# | Description |
|-------------|---|
| AE-400205-1 | Recombivirus™ Mouse Classical Swine Fever Virus (CSFV) E2 IgG ELISA kit, Quantitative, 96 tests |
| AE-400215-1 | Recombivirus™ Mouse Classical Swine Fever Virus (CSFV) Erns IgG ELISA kit, Quantitative, 96 tests (DIVA Test) |
| CSFE21-C | Recombinant Classical Swine Fever Virus E2 protein (CSFV-E2) control for western blot |
| CSFE21-S | Rabbit anti-Classical Swine Fever Virus E2 protein (CSFV-E2) antiserum |
| CSFE25-R-10 | Recombinant (<i>E.coli</i>) Classical Swine Fever Virus E2 protein (CSFV-E2) (His-tag, >95%) purified |
| CSFR11-C | Recombinant Classical Swine Fever Virus Erns protein (CSFV-Erns) control for western blot |
| CSFR11-S | Rabbit anti-Classical Swine Fever Virus Erns protein (CSFV-Erns) antiserum |
| CSFR15-R-10 | Recombinant (<i>E.coli</i>) Classical Swine Fever Virus Erns protein (CSFV-Erns) (His-tag, >95%) purified |
| CSFR21-M | 190520IA |