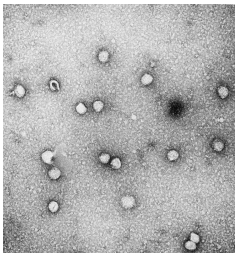
ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Classical Swine Fever Virus Erns protein (CSFV Erns) Antibodies and Controls

□ **Cat #** CSFVR11-S	**Rabbit** anti-Classical Swine Fever Virus Erns protein (CSFV-Erns) antiserum	**SIZE**:100 ul
□ **Cat #** CSFVR11-C	Recombinant Classical Swine Fever Virus Erns protein (CSFV-Erns) control for western blot	**SIZE**:100 ul

Hog Cholera is **Classical swine fever (CSF)** or Pig plague based on the German word Schweinepest. This disease is different from Swine Flu or Influenza. CSF is also different from human Cholera that is caused by the bacterium Vibrio cholera. CSF is very contagious among pigs and wild boar. The virus responsible for this disease is called CSV or **CSFV.** It is classified in the Group IV ((+) ssRNA), it is a lipid-enveloped pathogen which belongs to the genus Pest virus in the family of Flaviviridae. CSFV is very similar to a ruminant pestiviruses which cause Bovine Viral Diarrhea (BVDV) and Border Disease (BDV). Pigs and wild boars are the only hosts for CSV. The virus proliferate in the blood, tissues, secretions and excretions from the infected animal. It is transmitted mostly by the oral route, conjunctiva, mucous membrane, skin abrasion, insemination and percutaneous blood transfer. Airborne transmission is rare but can occur through mechanically ventilated units to the next unit. Once the animal is infected the incubation period is normally from 3 to 4 days but can range between 2 to 14 days. After four days to three weeks of the virus entry into the animal's system the symptoms start with fever which will lead to loss of appetite, depression, withdrawal from other animals, reddened and draining eyes, vomiting, constipation or diarrhea, and coughing and difficulty in respiration. Other symptoms also include purple hemorrhagic areas on the abdomen, nervous sign such as circling, incoordination, muscle tremors and even convulsions.



CSFV is diagnosed by histology or the presence of antibodies by ELISA. Infected piglets born to infected but sub clinical sows help maintain the disease within a population. Other signs can include lethargy, fever, immunosuppression, chronic diarrhea and secondary respiratory infections. Preventive State Regulations usually assume 21 days as the outside limit of the incubation period. Animals with an acute infection can survive 2 to 3 months before their eventual death. Eradicating CSF is problematic. Current programs revolve around rapid detection, diagnosis and slaughter. This may possibly be followed by emergency vaccination (ATCvet codes: QI09AA06 for the inactivated viral vaccine, QI09AD04 for the live vaccine). Vaccination is only used where the virus is widespread in the domestic pig population and/or in wild or feral pigs. In the latter case a slaughter policy alone is usually impracticable. Possible sources for maintaining and introducing infection include the wide transport of pigs and pork products, as well as endemic CSF within wild boar and feral pig populations.

The disease is endemic in much of **Asia, Central and South America**, and parts of Europe and Africa. It was believed to have been eradicated in the United Kingdom by 1966 (according to the Department for Environment, Food & Rural Affairs), but an outbreak occurred in East Anglia in 2000. It was eradicated in the USA by 1978, according to the United States Department of Agriculture. Other regions believed to be free of CSF include Australia, Canada (1962), Ireland, New Zealand and Scandinavia.

Source of Antigen and Antibodies

Antigen	Recombinant purified CSFV Erns protein (cat# CSFR15-R-10)
Ab Host/type	Rabbit, Polyclonal antiserum (Cat # CSFVR11-S) supplied in 0.05% azide as preservative.
2-Ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates)
-ve control IgG	#20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control.

Cat # CSFVR11-C, Positive Control
CSFV Erns protein was expressed in E. Coli with his-tag (full length, >95%, ~26 KDa). Purified protein for Western blot +ve control (Cat# CSFVR11-C) is supplied in SDS-PAGE. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should re dissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the # CSFVR11-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

Form & Storage of Antibodies/Peptide Control

Antiserum

□ 100 ul □ solution □ lyophilized powder
Buffer: PBS+0.05% azide
Reconstitute powder 100 ul of PBS.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting: An initial dilution of 1:500-2K is recommended for Western. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions.

ELISA (1:10-50K; using 50-100 ng antigen/well).

Histochemistry & Immunofluorescence: not tested.

Specificity & Cross-reactivity: This Antibody reacts with CSFV Erns protein and recombinant protein. Cross reactivity with other proteins has not been established. Antibodies and recombinant proteins to CSFV are available for control studies.

References: Meyers G (1989) Virology 171:555-567; Weiland F (1999) J. Gen. Virol. 80:1157-1165(1999). Ilona R (2004) Virology 322:143–157; Fernandez S (2008) Virology 370:122–129; Risatti GR Virology 364:371–382.

*This product is for In vitro research use only.

Related material available from ADI

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 (E.coli) 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 (E.coli) Classical Swine Fever Virus Erns protein (CSFV-Erns) (his tag, >95%) purified

AE-400200-1 Recombivirus™ Porcine/Swine/Pig Classical Swine Fever Virus (CSFV) E2 IgG ELISA kit, Quantitative, 96 tests
AE-400200-5 Recombivirus™ Porcine/Swine/Pig Classical Swine Fever Virus (CSFV) E2 IgG ELISA kit, Quantitative, 5x96 tests
AE-400210-1 Recombivirus™ Porcine/Swine/Pig Classical Swine Fever Virus (CSFV) Erns IgG ELISA kit (DIVA test), Quantitative, 96 tests
AE-400210-5 Recombivirus™ Porcine/Swine/Pig Classical Swine Fever Virus (CSFV) Erns IgG ELISA kit (DIVA test), Quantitative, 5x96 tests
RV-400220-RT-50 Swine/Porcine/Pig Classical Swine Fever virus (CSFV) antigen rapid test card (results is 2-10 mins), 50 cards/pk
RV-400230-RT-50 Swine/Porcine/Pig Classical Swine Fever virus (CSFV) Antibody rapid test card (results is 2-10 mins), 50 cards/pk
RV-400230-RT-50 Swine/Porcine/Pig Classical Swine Fever virus (CSFV) Antigen rapid test card (results is 2-10 mins), 50 cards/pk
CSFVR11-S 141219P

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