Product Specification Sheet

Recombinant Camelpox virus protein

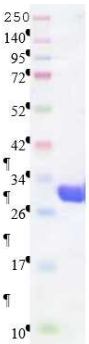
CPOX15-R-10	Recombinant (E.coli) Camelpox virus protein (>95%, his tag)	Size: 10 ug

Camelpox is an economically important contagious skin disease of camelids and is characterized by mild local skin infection and less common severe systemic infections. The CPOX belongs to the family Poxviridae, subfamily Chordopoxvirinae, genus Orthopoxvirus (OPV) and is genetically related to variola virus. The disease is characterized by fever, local or generalised pox lesions on the skin and in the mucous membranes of the mouth and respiratory tract. The clinical manifestations range from inapparent infection to mild, moderate and, less commonly, severe systemic infection and death. The disease occurs more frequently and more severely in young animals and pregnant females. The disease is confined to camel-rearing belts particularly in developing countries and causes economic impact due to considerable loss in terms of morbidity, mortality, loss of weight and reduction in milk yield. Outbreaks have been reported in the Middle East, in Asia, in Africa and in the southern parts of Russia and India. The disease is endemic in these countries and a pattern of sporadic outbreaks occurs with a rise in the seasonal incidence usually during the rainy season. Transmission is by either direct contact between infected and susceptible animals or indirect infection via a contaminated environment. The role of insects in transmission has been suspected because the disease is often observed after rainfall. CPOX is very host specific and does not infect other animals.

The 205,719-bp CPOX genome contains more than 211 putative genes, which code for different proteins with host range, immunomodulation, virulence and other functions. The genome is AT-rich (66.9 %) having cross-links that join the two DNA strands at both ends. The genome contains inverted terminal repeats (ITRs) of 6045 bp and has 206 predicted open reading frames (ORFs). The central region of the genome contains genes that are highly conserved amongst all sequenced OPVs.

Although the disease can be diagnosed based on clinical signs, the similar confounding skin lesions necessitate identification of infection by molecular biology based diagnostic techniques, namely restriction enzyme analysis of the virus genome, species-specific diagnostic PCRs including real-time quantitative PCR, and sequence and phylogenetic analysis for diagnosis and differentiation of CPOX. A wide range of serological tests like virus neutralisation and ELISA is also available to identify CPOX. Both inactivated and live-attenuated vaccines are available in some countries. However, live vaccines are preferred as they provide long-lasting immunity

Source of Antigen



Recombinant Camelpox virus protein was expressed in E.coli as a his-tag fusion protein (224 aa, >95%, ~27.2 kda). Purified protein is supplied in 50mM Tris-HCl, 8M Urea, 0.5 mM EDTA, 5mM β-mercaptoethanol, 0.25M NaCl and 0.25M Imidazole (see lot sp. Conc. on the vial)

Endotoxin level : < 1.0 EU per µg protein as determined by the LAL method.

It is suitable for ELISA, Western or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

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
ELISA, Western blot

Cellular Activity, Histochemistry & Immunofluorescence

Specificity:
Camelpox virus (CPOX, 224-aa, protein accession # AAG37571.1) is 100% conserved in camelpox virus, 98% conserved in Cowpox virus and 97% conserved in rabbitpox virus and horsepox virus.

General References: Gubser C, Smith GL (2002) J.Gen.Virol. 83, 855-872.

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	Prod Description
AE-311170-01N	Recombivirus camelpox virus H3L/p35 IgG negative control serum
AE-311170-02P	Recombivirus camelpox virus H3L/p35 IgG positive control serum
AE-311170-1	Recombivirus camelpox virus H3L/p35 IgG ELISA kit, 96 tests
CPOX11-C	Recombivirus camelpox virus H3L/p35 western blot control
CPOX11-S	Recombivirus camelpox virus H3L/p35 IgG antiserum
CPOX15-R-10	Recombivirus camelpox virus H3L/p35 protein

CPOX15-R-10-Camelpox-virus-protein 151125SV

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