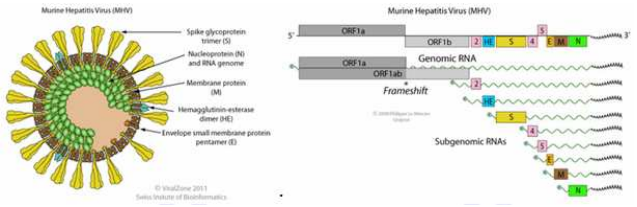
Product Specification Sheet

Rat sialodacryoadenitis Virus nucleoprotein (SDAV-NP) Antibodies and Controls

□ **Cat #** SDAV15-R-10 Recombinant Rat sialodacryoadenitis Virus nucleoprotein (SDAV-NP) **SIZE**: 10 ug

Animals, just like humans, are susceptible to various bacterial and viral infections. Animals are used widely in biomedical research. Laboratory animal infections may compromise the health of the animals and ultimately the research data derived from them. Microbial infections alter not only the animal behavior but also the biological responses. Apart from the use of whole animals for experimentations, numerous animal cell lines and proteins are also derived from animals and used in biomedical research. Animals or animal-derived products are transported from one part of the world to another in a matter of days. So there is great potential for the diseases to spread very quickly. Many infections are asymptomatic and without any overt clinical symptoms. Detection of microbial infections has relied largely on serological screening and presence of microbial antigens or antibodies.



Sialodacryoadenitis virus (**SDAV**) is distributed worldwide in laboratory rats. SDAV infects the lacrimal and salivary glands and the upper and lower respiratory tracts of rats, causing the clinical manifestations of enlarged salivary glands, sialoadenitis, dacryoadenitis, rhinitis, tracheitis, and bronchoalveolitis. SDAV can also cause reproductive disorders and behavioral changes in the infected animals. Serologic surveys indicate that coronavirus infections are common in laboratory rats housed in research facilities and several outbreaks of SDAV in rat colonies have been reported. Therefore, SDAV is an important viral pathogen in comparative laboratory medicine. SDAV is antigenically related to the mouse hepatitis virus (MHV) serogroup of the family Coronaviridae in the order of Nidovirales. The MHV serogroup includes Parker's rat coronavirus (PRCV), bovine coronavirus (BCV), and human coronavirus (HCV) strain OC43. As with mouse hepatitis coronaviruses (MHVs), the SDAV genome was code for at least three structural proteins associated with the virion: **spike (S) protein, membrane (M) protein, and nucleocapsid (N) protein**. Antibodies specific for MHV structural proteins were able to recognize both SDAV and PRCV proteins on immunoblots.

Source of Antigen



Rat SDAV-NP was expressed in E. Coli as his-tag fusion protein (full length, purity >95%, ~49.5 KDa). Purified protein is supplied in 50 mM Tris, pH 8, 0.25M NaCl, 5mM beta-mercaptoethanol,, 0.5mM ETDA, 0.25M imidzazole, and 8M Urea (or see lot sp. conc on the vial).

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

St**orage**

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: load 100-200 ng/well.

ELISA (50-100 ng antigen/well).

Specificity & Cross-reactivity

Rat SDAV-NP protein is highly conserved in coronoviruses from several species: murine corona/MHV (94%), porcine, equine, human, bovine, and canine coronaviruses (~72%). Anti-rat SDAV-NP are expected to crossreact with coronaviruses NP from various species. However, antibody crossreactivity has not been established. Recombinant purified rat SDAV-VP6 protein is available for control studies.

References: Barker MG (1994) Can J. Vet. Res. 58, 99-103; Yood D (2000) Clin. Diagn. Lab. Immunol.7, 568-573; Bhatt PN (1972) J. Infect. Dis. 126, 123-130; Bhatt PN (1977) Infec. Immun. 18, 823-827; Kunita S (1993) Virol. 193, 520-523.

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
SDAV11-C	Recombinant Rat sialodacryoadenitis Virus (SDAV) nucleoprotein control for Western blot
SDAV11-RNC	Rat Anti-Rat sialodacryoadenitis Virus (SDAV) nucleoprotein antibody negative control serum
SDAV11-RPC	Rat Anti-Rat sialodacryoadenitis Virus (SDAV) nucleoprotein antibody positive control serum
SDAV11-S	Rabbit Anti-Rat sialodacryoadenitis Virus (SDAV) nucleoprotein antiserum
SDAV15-R-10	Recombinat (E. coli, his-tag, ~49 Kda, full length, >95%) Rat sialodacryoadenitis Virus (SDAV) nucleoprotein
AE-310310-1	RecombiVirus Rat sialodacryoadenitis Virus (SDAV) IgG ELISA Kit, 96 tests

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com