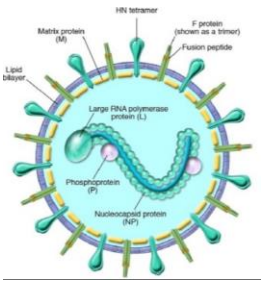
ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Human parainfluenza 1 (HPIV-1)) Fusion protein Antibodies and Controls

☐ Cat # SENF14-M Mouse Monoclonal Anti-HPIV-1 fusion protein F IgG **SIZE**: 100 ul

Human parainfluenza viruses (hPIVs) are the viruses that cause 'human parainfluenza.' hPIVs are a group of four distinct serotypes of enveloped single-stranded RNA viruses belonging to the paramyxovirus family. These viruses are closely associated with both human and animal disease. negative sense RNA with a genome (~15kb). hPIV remains the second main cause of hospitalisation in children under 5 years of age suffering from a respiratory illness (only respiratory syncytial virus causes more respiratory hospitalisations for this age group). There are 4 hPIV serotypes (hPIV1-4), based on antigenic and genetic differences. hPIV is closely related to a recently formed virus grouping, the 'megamyxoviruses' (Hendra and Nipah) and closely linked to the metapneumovirus. hPIV is divided within two genera: Respirovirus (hPIV-1 & hPIV-3) and the Rubulavirus (hPIV-2 & hPIV-4). In the USA it is estimated that there are 5 million children with lower respiratory infections (LRI) each year.[12] Estimates have shown that hPIV-1, hPIV-2 and hPIV-3 have been linked with up to a third of these infections. hPIV-4 remains infrequently detected. HPIV diagnosis is made by virus isolation, PCR or serology (presence of antibodies by ELISA).



hPIV genome encodes 6 key structural proteins in the following order**: 3′-NP-P-M-F-HN-L-5′** (Nucleoprotein (NP, 66-70 kda); Phosphoprotein (P); Matrix Protein (M, 28-40 kda), Fusion Protein (F or F0, 60-66 kda), Hemagglutinin-neuraminidase (HN, 69-82 kda), and Large nucleocapsid Protein (L, 175-251 kda). Viral RNA, together with the N, P, and L proteins, form the nucleocapsid core of HPIV. The HN and F proteins are found on the lipid envelope of HPIV and infected cells. The HPIV F protein is integral in virus-host cell membrane fusion. It is this fusion of membranes which allows the viral nucleocapsid to enter and infect a host cell.

The body's primary defense against hPIV infection remains humoral immunity. This is mainly directed against surface proteins which can be found on the virus. In particular the proteins HN and F prove to be most immunogenic in terms of stimulating the immune system. **No vaccine** is available for any hPIV. Several live-attenuated intranasal vaccines and recombinant protein based vaccines are in clinical trials.

Source of Antigen and Antibodies

Antigen	Purified fuusion protein of HPIV-1
Ab Host/type	Mouse, monoclonal IgG2a (Cat # SENF14-M) supplied in 0.05% azide as preservative.
2-Ab	**Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control or isotype control

Mouse IgG2a isotype control

Catalog#	Product Description
20102-102	Mouse IgG2a isotype control, purified
20102-102-B	Mouse IgG2a-Biotin conjugate (isotype control)
20102-102-F	Mouse IgG2a-FITC conjugate (isotype control)
20102-102-FP	Mouse IgG2a-FITC-PE conjugate (isotype control)
20102-102-HP	Mouse IgG2a-HRP conjugate (isotype control)
20102-102-PC5	Mouse IgG2a-PE-Cy5 conjugate (isotype control)
20102-102-PE	Mouse IgG2a-PE conjugate (isotype control)

Form & Storage of Antibodies/Control

Aff pure Igg

☐ 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 1:500-2000 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

The antibody (#SENF14-M) is specific for parainfluenza virus type 1 with no reactivity with HPIV2 or 3 or influenza A or B viruses.

References: Vainionpää R et al (1994) Clin. Microbiol. Rev. 7: 265–75; Henrickson, KJ (2003) Clinical Microbiology Reviews 16 (2): 242–64; Henrickson KJ (1994) Clin. Microbiol. Rev. 16, 242-264; Ah-Tye et al (1999) Microb. Pathog. 27**:**329-336;

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
SEND11-MPC	Mouse Anti-Sendai/(SeV/Parainfluenza virus 1) antibody positive control serum
SEND11-S	Chicken Anti-Sendai/SeV/Parainfluenza virus 1 antiserum
SEND12-RPC	Rat Anti-Sendai/(SeV/Parainfluenza virus 1) antibody positive control serum
SEND12-S	Goat Anti-Sendai/(SeV/Parainfluenza virus 1) antiserum
SEND13-CPC	Chicken Anti-Sendai/SeV/Parainfluenza virus 1 antibody positive control serum
SEND13-M	Monoclonal Anti-Sendai virus (SeV/Parainfluenza virus 1) IgG
SEND15-N-100	Sendai virus/Parainfluenza type 1 antigens (Vero cells, inactivated, partially pure) for ELISA/Western
SEND21-M	Monoclonal Anti-Parainfluenza virus 2 IgG
SEND22-M	Monoclonal Anti-Parainfluenza virus 2 IgG
SEND23-S	Goat Anti-Sendai (Sev/Parainfluenza virus 2/3) antiserum
SEND25-N-100	Sendai virus/Parainfluenza type 2 antigens (Vero cells, inactivated, partially pure) for ELISA/Western
SEND31-M	Monoclonal Anti-Sendai virus/Parainfluenza type 3 (SeV/Parainfluenza virus 3) IgG
SEND35-N-100	Sendai virus/Parainfluenza type 3 antigens (Vero cells, inactivated, partially pure) for ELISA/Western
SEND45-N-100	Canine Parainfluenza virus (CPiV) antigens (MDCK cells, inactivated, partially pure) for ELISA/Western
SENF14-M	Monoclonal Anti-Sendai virus/Parainfluenza type 1 fusion protein F (SeV/Parainfluenza virus 1, F) IgG
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ENH31-M	Monoclonal Anti-Sendai virus/Parainfluenza type 3 hemagluttinin (HA) protein (SeV/Parainfluenza virus 3, H) IgG (clone 1)
SENH32-M	Monoclonal Anti-Sendai virus/Parainfluenza type 3 hemagluttinin (HA) protein (SeV/Parainfluenza virus 3, H) IgG (clone 2)
AE-300600-1	Mouse Sendai/(SeV/Parainfluenza virus 1) Antibody ELISA Kit, 96 tests
AE-300610-1	Rat Sendai/(SeV/Parainfluenza virus 1) Antibody ELISA Kit, 96 tests

SENF14-M-Anti-HPIV-1-Fusion-Protein-IgG 160222A

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