SANTA CRUZ BIOTECHNOLOGY, INC.

FIV p24 (PAK3-2C1): sc-65624

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Feline immunodeficiency virus (FIV) is a lentivirus that affects domestic cats throughout the world. Five subtypes of FIV exist, based on amino acid sequence differences in the the viral envelope. The main mode of FIV transmission is through deep bite wounds, though it can also be spread via mucosal surfaces such as those in the mouth, rectum and vagina. FIV is similar to human immunodeficiency virus (HIV) in that it infects many cell types in its host, including $CD4^+$ and $CD8^+$ T lymphocytes, B lymphocytes and macrophages. FIV eventually leads to collapse of the immune system because of the infection and exhaustion of the $CD4^+$ cells. FIV p120 and p24 are glycoproteins that localize to the envelope of the virus and are useful in diagnosis of the disease.

REFERENCES

1. Verschoor, E.J., et al. 1993. Posttranslational processing of the feline immunodeficiency virus envelope precursor protein. Virology 193: 433-438.
2. Lombardi, S., et al. 1995. Epitope mapping of the V3 domain of feline immunodeficiency virus envelope glycoprotein by monoclonal antibodies. J. Gen. Virol. 76: 1893-1899.
3. Pancino, G., et al. 1995. Differences in feline immunodeficiency virus host cell range correlate with envelope fusogenic properties. Virology 206: 796-806.
4. Sauter, S.L., et al. 2003. A highly efficient gene delivery system derived from feline immunodeficiency virus (FIV). Methods Mol. Med. 76: 405-432.
5. Reggeti, F. and Bienzle, D. 2004. Feline immunodeficiency virus subtypes A, B and C and intersubtype recombinants in Ontario, Canada. J. Gen. Virol. 85: 1843-1852.
6. Sinn, P.L., et al. 2005. Persistent gene expression in mouse nasal epithelia following feline immunodeficiency virus-based vector gene transfer. J. Virol. 79: 12818-12827.
7. Stevens, R., et al. 2005. Pre-existing immunity to pathogenic *Listeria monocytogenes* does not prevent induction of immune responses to feline immunodeficiency virus by a novel recombinant *Listeria monocytogenes* vaccine. Vaccine 23: 1479-1490.
8. Assogba, B.D., et al. 2007. Mucosal administration of low-dose cell-associated feline immunodeficiency virus promotes viral latency. J. Infect. Dis. 195: 1184-1188.
9. Yamamoto, J.K., et al. 2007. Feline immunodeficiency virus pathogenesis and development of a dual-subtype feline-immunodeficiency-virus vaccine. AIDS 21: 547-563.

SOURCE

FIV p24 (PAK3-2C1) is a mouse monoclonal antibody raised against FIV p24.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FIV p24 (PAK3-2C1) is recommended for detection of Gag p24 of FIV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Molecular Weight of FIV p24: 24 kDa.

SELECT PRODUCT CITATIONS

1. Yoshikawa, R., et al. 2017. Feline immunodeficiency virus evolutionarily acquires two proteins, vif and protease, capable of antagonizing feline APOBEC3. J. Virol. 91: e00250-17.
2. Tanabe, T., et al. 2021. Transcriptional inhibition of feline immunodeficiency virus by α-amanitin. J. Vet. Med. Sci. 83: 158-161.
3. Kosugi, Y., et al. 2021. A comprehensive investigation on the interplay between feline APOBEC3Z3 proteins and feline immunodeficiency virus Vif proteins. J. Virol. 95: e0017821.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.