



## FIV Protease: sc-65654

### 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 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<sup>+</sup> and CD8<sup>+</sup> T lymphocytes, B lymphocytes and macrophages. FIV eventually leads to collapse of the immune system because of the infection and exhaustion of the CD4<sup>+</sup> cells. FIV p120 and p24 are glycoproteins that localize to the envelope of the virus and are useful in diagnosis of the disease. FIV aspartyl protease (PR) resembles other related retroviral enzymes and may play a role in autolysis in the viral replication cycle.

### REFERENCES

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3. Lin, Y.C., et al. 2003. Structural basis for distinctions between substrate and inhibitor specificities for feline immunodeficiency virus and human immunodeficiency virus proteases. *J. Virol.* 77: 6589-6600.
4. Shimojima, M., et al. 2004. T cell subpopulations mediating inhibition of feline immunodeficiency virus replication in mucosally infected cats. *Microbes Infect.* 6: 265-271.
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. Dean, G.A., et al. 2006. Cytokine modulation of the innate immune response in feline immunodeficiency virus-infected cats. *J. Infect. Dis.* 193: 1520-1527.
8. Dunham, S.P., et al. 2006. Limited efficacy of an inactivated feline immunodeficiency virus vaccine. *Vet. Rec.* 158: 561-562.
9. Ryan, G., et al. 2006. RNA *in situ* hybridization for the detection of feline immunodeficiency virus in infected cells. *Southeast Asian J. Trop. Med. Public Health* 37: 106-112.

### SOURCE

FIV Protease (PR3-2) is a mouse monoclonal antibody raised against FIV Protease.

### PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

FIV Protease (PR3-2) is recommended for detection of Pol Protease of FIV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of FIV Protease: 14 kDa.

### 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](http://www.scbt.com) for detailed protocols and support products.