SANTA CRUZ BIOTECHNOLOGY, INC.

FeLV gp85/gp70 (C11D8): sc-65621

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Feline leukemia virus (FeLV), a retrovirus that infects cats, is usually transmitted between infected cats through saliva or nasal secretions, though it can also be transmitted via urine, feces or milk. Once transmitted, the virus infects the epithelial cells, tonsillar B lymphocytes and macrophages of the cat, and subsequently enters the blood stream, eventually causing viremia. If the virus passes into the bone marrow, it will remain in the body of the cat for life. FeLV causes immunosuppression and kills about 30% of infected cats. Four subgroups of FeLV exist: FeLV-A, -B, -C and -T, but only subgroup A is transmissible between cats. FeLV glycoprotein 27 (gp27), glycoprotein 70 (gp70) and glycoprotein 85 (gp85) are envelope proteins that are commonly used to diagnose cats with the feline leukemia virus. Development in the cat of a high concentration of cytotoxic antibody against FeLV gp70 may play an important role in tumor regression as well as disappearance of FeLV infection.

REFERENCES

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2. Snyder, H.W., et al. 1984. Clearance of feline leukemia virus from persistently infected pet cats treated by extracorporeal immunoadsorption is correlated with an enhanced antibody response to FeLV gp 70. J. Immunol. 132: 1538-1543.
3. Faix, P.H., et al. 2002. Host range and receptor binding properties of vectors bearing feline leukemia virus subgroup B envelopes can be modulated by envelope sequences outside of the receptor binding domain. J. Virol. 76: 12369-12375.
4. Miyazawa, T. 2002. Infections of feline leukemia virus and feline immunodeficiency virus. Front. Biosci. 7: d504-d518.
5. Nolen, R.S. 2004. Feline leukemia virus threatens endangered panthers. J. Am. Vet. Med. Assoc. 224: 1721-1722.
6. Endo, Y., et al. 2004. Prevalence of canine distemper virus, feline immunodeficiency virus and feline leukemia virus in captive African lions *(Panthera leo)* in Japan. J. Vet. Med. Sci. 66: 1587-1589.
7. Torres, A.N., et al. 2005. Re-examination of feline leukemia virus: host relationships using real-time PCR. Virology 332: 272-283.
8. Gomes-Keller, M.A., et al. 2006. Shedding of feline leukemia virus RNA in saliva is a consistent feature in viremic cats. Vet. Microbiol. 112: 11-21.
9. Cattori, V., et al. 2006. Rapid detection of feline leukemia virus provirus integration into feline genomic DNA. Mol. Cell. Probes 20: 172-181.

SOURCE

FeLV gp85/gp70 (C11D8) is a mouse monoclonal antibody raised against amino acids 214-218 of FeLV gp85/gp70.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FeLV gp85/gp70 (C11D8) is recommended for detection of Env gp85 and Env gp70 of FeLV by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 FeLV gp85: 85 kDa.

Molecular Weight of FeLV gp70: 70 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

1. Cano-Ortiz, L., et al. 2021. Feline leukemia virus-B envelope together with its glycoGag and human immunodeficiency virus-1 Nef mediate resistance to feline SERINC5. J. Mol. Biol. E-published.

STORAGE

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

PROTOCOLS

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