SANTA CRUZ BIOTECHNOLOGY, INC.

Streptavidin (S3E11): sc-52235

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Streptavidin is a tetrameric protein purified from *Streptomyces avidinii* that binds very tightly to the vitamin biotin with one of the strongest known biological and noncovalent interactions. Each monomer of Streptavidin binds one molecule of biotin. The strong Streptavidin-biotin bond can be used to "glue" various chemicals onto surfaces and to link together molecules such as radioisotopes and monoclonal antibodies. Streptavidin is widely utilized in scientific laboratories, commonly for the purification of immunochemistries. It is one of the most important components in diagnostics and laboratory kits.

REFERENCES

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3. Sorensen, H.P., et al. 2003. A favorable solubility partner for the recombinant expression of Streptavidin. Protein Expr. Purif. 32: 252-259.
4. Hyre, D.E., et al. 2006. Cooperative hydrogen bond interactions in the Streptavidin-Biotin system. Protein Sci. 15: 459-467.
5. Howarth, M., et al. 2006. A monovalent Streptavidin with a single femtomolar Biotin binding site. Nat. Methods 3: 267-273.
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8. Miglino, R., et al. 2007. A semi-automated and highly sensitive streptavidin magnetic capture-hybridization RT-PCR assay: application to genus-wide or species-specific detection of several viruses of ornamental bulb crops. J. Virol. Methods 146: 155-164.
9. Palmowski, M., et al. 2008. Pharmacodynamics of Streptavidin-coated cyanoacrylate micro-bubbles designed for molecular ultrasound imaging. Invest. Radiol. 43: 162-169.

SOURCE

Streptavidin (S3E11) is a mouse monoclonal antibody raised against Streptavidin of *Streptomyces avidinii* origin.

PRODUCT

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

Streptavidin (S3E11) is available conjugated fluorescein (sc-52235 FITC, 100 tests in 2 ml), for WB (RGB), IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

Streptavidin (S3E11) is recommended for detection of Streptavidin of *Streptomyces avidinii* origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:100), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells); permits the formation of antibody-Streptavidin complexes, thus enhancing the sensitivity of the detection system.

Molecular Weight of Streptavidin: 24 kDa.

SELECT PRODUCT CITATIONS

1. O'Leary, V.B., et al. 2011. Innocuous full-length botulinum neurotoxin targets and promotes the expression of lentiviral vectors in central and autonomic neurons. Gene Ther. 18: 656-665.
2. Ovsepian, S.V., et al. 2015. Internalization and retrograde axonal trafficking of tetanus toxin in motor neurons and *trans*-synaptic propagation at central synapses exceed those of its C-terminal-binding fragments. Brain Struct. Funct. 220: 1825-1838.

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.