SANTA CRUZ BIOTECHNOLOGY, INC.

X123 (3C7): sc-100741



BACKGROUND

Friedreich's ataxia is an inherited disease that is characterized by a progressive degeneration of the spinal cord and nerve tissue. Caused by a mutated gene region on chromosome 9 that results in mitochondrial malfunction, Friedreich's ataxia can lead to a variety of conditions including speech problems, vision impairment, muscle weakness, diabetes and scoliosis. X123, also known as C9orf61 (chromosome 9 open reading frame 61), is a 289 amino acid protein that is expressed at high levels in skeletal muscle and at lower levels in brain, heart and lung. The gene encoding X123 is located within the Friedreich's ataxia region on chromosome 9, suggesting a possible role for X123 in the pathogenesis of this disease.

REFERENCES

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- Dürr, A., Cossee, M., Agid, Y., Campuzano, V., Mignard, C., Penet, C., Mandel, J.L., Brice, A. and Koenig, M. 1996. Clinical and genetic abnormalities in patients with Friedreich's ataxia. N. Engl. J. Med. 335: 1169-1175.
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- 6. Hebert, M.D. 2008. Targeting the gene in Friedreich ataxia. Biochimie 90: 1131-1139.

CHROMOSOMAL LOCATION

Genetic locus: C9orf61 (human) mapping to 9q21.11; Gm967 (mouse) mapping to 19 B.

SOURCE

X123 (3C7) is a mouse monoclonal antibody raised against recombinant X123 of human origin.

PRODUCT

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

STORAGE

Store at 4° C, **D0 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.

APPLICATIONS

X123 (3C7) is recommended for detection of X123 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for X123 siRNA (h): sc-92775, X123 siRNA (m): sc-155369, X123 shRNA Plasmid (h): sc-92775-SH, X123 shRNA Plasmid (m): sc-155369-SH, X123 shRNA (h) Lentiviral Particles: sc-92775-V and X123 shRNA (m) Lentiviral Particles: sc-155369-V.

Molecular Weight of X123: 32 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

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).

SELECT PRODUCT CITATIONS

 Tsunoda, T., Riku, M., Yamada, N., Tsuchiya, H., Tomita, T., Suzuki, M., Kizuki, M., Inoko, A., Ito, H., Murotani, K., Murakami, H., Saeki, Y. and Kasai, K. 2021. ENTREP/FAM189A2 encodes a new ITCH ubiquitin ligase activator that is downregulated in breast cancer. EMBO Rep. E-published.

PROTOCOLS

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