SANTA CRUZ BIOTECHNOLOGY, INC.

Dystrobrevin (V-19): sc-13812

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Dystrobrevins are protein components of the dystrophin complex, whose disruption leads to Duchenne muscular dystrophy and related diseases. α-Dystrobrevin is a dystrophin-related and -associated protein that is involved in synapse maturation and is required for normal muscle function. α-Dystrobrevin is a component of the dystrophin glycoprotein complex. It is localized to the cytoplasmic side of the sarcolemma and is highly concentrated at the neuromuscular junctions in skeletal muscle. The insertion of 57 amino acids by alternative splicing accounts for the increase in molecular mass of α-Dystrobrevin 1 in skeletal and cardiac muscle compared with brain and lung. α-dystrobrevin containing complexes are found in endothelial and smooth muscle cells, while β-Dystrobrevin containing complexes are present at the basal region of renal epithelial cells. Additionally, β-Dystrobrevin is found in neurons and is highly enriched in postsynaptic densities. Alternative splicing of α-Dystrobrevin produces γ-Dystrobrevin (isoform 5), δ-Dystrobrevin (isoform 7), ε-Dystrobrevin (isoform 6) and ζ-Dystrobrevin (isoform 8). Additional unnamed isoforms may also exist.

SOURCE

Dystrobrevin (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of α-Dystrobrevin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13812 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dystrobrevin (V-19) is recommended for detection of α-Dystrobrevin, δ-Dystrobrevin, ε-Dystrobrevin and α-Dystrobrevin isoform 1 of mouse, rat and human origin 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with α-Dystrobrevin isoform 3, β-Dystrobrevin, α-Dystrobrevin isoform 5 or ζ-Dystrobrevin.

Dystrobrevin (V-19) is also recommended for detection of α-Dystrobrevin, δ-Dystrobrevin, ε-Dystrobrevin and α-Dystrobrevin isoform 1 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of non-muscle Dystrobrevin α-type: 78 kDa.

Molecular Weight of muscle Dystrobrevin α-type: 94 kDa.

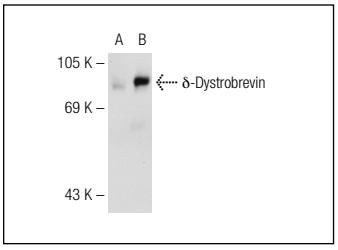
Molecular Weight of ε-Dystrobrevin: 42 kDa.

Positive Controls: δ-Dystrobrevin (h3): 293 Lysate: sc-177159, SK-N-SH cell lysate: sc-2410 or C2C12 whole cell lysate: sc-364188.

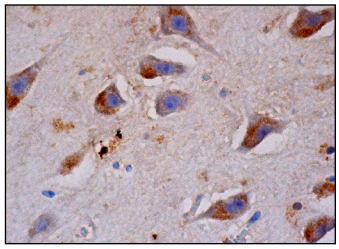
STORAGE

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

DATA



Dystrobrevin (V-19): sc-13812. Western blot analysis of δ-Dystrobrevin expression in non-transfected: sc-110760 (**A**) and human δ-Dystrobrevin transfected: sc-177159 (**B**) 293 whole cell lysates.



Dystrobrevin (V-19): sc-13812. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal and glial cells.

SELECT PRODUCT CITATIONS

1. Mulvey, C., et al. 2005. Expression of the skeletal muscle dystrophin-dystroglycan complex and syntrophin-nitric oxide synthase complex is severely affected in the type 2 diabetic Goto-Kakizaki rat. Eur. J. Cell Biol. 84: 867-883.
2. Kosek, D.J., et al. 2008. Modulation of the dystrophin-associated protein complex in response to resistance training in young and older men. J. Appl. Physiol. 104: 1476-1484.
3. Cerecedo, D., et al. 2010. Actin filaments and microtubule dual-granule transport in human adhered platelets: the role of α-dystrobrevins. Br. J. Haematol. 149: 124-136.
4. Pócsai, K., et al. 2010. Components of the basal lamina and dystrophin-dystroglycan complex in the neurointermediate lobe of rat pituitary gland: different localizations of β-dystroglycan, dystrobrevins, α1-syntrophin, and aquaporin-4. J. Histochem. Cytochem. 58: 463-479.
5. Cerecedo, D., et al. 2013. Haemostatic role of intermediate filaments in adhered platelets: importance of the membranous system stability. J. Cell. Biochem. 114: 2050-2060.

RESEARCH USE

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

PROTOCOLS

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