

β-Dystrobrevin (H-60): sc-292572

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 Ω-Dystrobrevin (isoform 8). Additional isoforms may also exist.

REFERENCES

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- Enigk, R.E. et al. 2001. Cellular and molecular properties of α-Dystrobrevin in skeletal muscle. *Front. Biosci.* 6: D53-D64.
- Gieseler, K., et al. 2001. Molecular, Genetic and physiological characterization of Dystrobrevin-like (dyb-1) mutants of *Caenorhabditis elegans*. *J. Mol. Biol.* 307: 107-117.
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- Kulyte, A., et al. 2002. Characterization of human alpha-Dystrobrevin isoforms in HL-60 human promyelocytic leukemia cells undergoing granulocytic differentiation. *Mol. Biol. Cell* 13: 4195-4205.
- Jones, K.J., et al. 2003. Deficiency of the syntrophins and α-Dystrobrevin in patients with inherited myopathy. *Neuromuscul. Disord* 13: 456-467.
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- Lien, C.F., et al. 2004. Differential spatio-temporal expression of α-Dystrobrevin-1 during mouse development. *Gene. Expr. Patterns* 4: 583-593.

CHROMOSOMAL LOCATION

Genetic locus: DTNB (human) mapping to 2p23.3; Dtnb (mouse) mapping to 12 A1.1.

STORAGE

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

SOURCE

β-Dystrobrevin (H-60) is a rabbit polyclonal antibody raised against amino acids 113-172 mapping near the N-terminus of β-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.

APPLICATIONS

β-Dystrobrevin (H-60) is recommended for detection of β-Dystrobrevin 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β-Dystrobrevin (H-60) is also recommended for detection of β-Dystrobrevin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for β-Dystrobrevin siRNA (h): sc-43330, β-Dystrobrevin siRNA (m): sc-43331, β-Dystrobrevin shRNA Plasmid (h): sc-43330-SH, β-Dystrobrevin shRNA Plasmid (m): sc-43331-SH, β-Dystrobrevin shRNA (h) Lentiviral Particles: sc-43330-V and β-Dystrobrevin shRNA (m) Lentiviral Particles: sc-43331-V.

Molecular Weight of β-Dystrobrevin: 61 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.