SANTA CRUZ BIOTECHNOLOGY, INC.

Dysbindin (B-5): sc-398872

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hermansky-Pudlak syndrome (HPS) is a rare, genetically heterogeneous, autosomal recessive disorder. It is characterized by oculocutaneous albinism, lysosomal storage defects and prolonged bleeding due to platelet storage pool deficiency. HPS is a result of defects in various cytoplasmic organelles such as melanosomes, platelet dense granules and lysosomes. The HPS proteins, including HPS-1-6 and Dysbindin (also designated HPS-7), all interact within three distinct, ubiquitously expressed protein complexes or biogenesis of lysosome-related organelle complexes. Defects in the genes encoding for these proteins are the cause of HPS. Dysbindin binds to dystrobrevins in the dystrophin-associated protein complex (DPC) complex. Dysbindin is a cytoplasmic protein. Isoforms 1 and 2 are the result of alternative splicing.

REFERENCES

1. Schosser, A. and Aschauer, H.N. 2004. In search of susceptibility genes for schizophrenia. Wien. Klin. Wochenschr. 116: 827-833.
2. Numakawa, T., et al. 2004. Evidence of novel neuronal functions of dysbindin, a susceptibility gene for schizophrenia. Hum. Mol. Genet. 13: 2699-2708.
3. Kendler, K.S. 2004. Schizophrenia genetics and dysbindin: a corner turned? Am. J. Psychiatry 161: 1533-1536.
4. Benson, M.A., et al. 2004. Schizophrenia genetics: dysbindin under the microscope. Trends Neurosci. 27: 516-519.
5. Zill, P., et al. 2004. The dysbindin gene in major depression: an association study. Am. J. Med. Genet. B Neuropsychiatr. Genet. 129B: 55-58.
6. Bray, N.J., et al. 2005. Haplotypes at the dystrobrevin binding protein 1 (DTNBP1) gene locus mediate risk for schizophrenia through reduced DTNBP1 expression. Hum. Mol. Genet. 14: 1947-1954.
7. Raybould, R., et al. 2005. Bipolar disorder and polymorphisms in the dysbindin gene (DTNBP1). Biol. Psychiatry 57: 696-701.
8. Arnold, S.E., et al. 2005. Neurodevelopment, neuroplasticity, and new genes for schizophrenia. Prog. Brain Res. 147: 319-345.

CHROMOSOMAL LOCATION

Genetic locus: DTNBP1 (human) mapping to 6p22.3; Dtnbp1 (mouse) mapping to 13 A5.

SOURCE

Dysbindin (B-5) is a mouse monoclonal antibody raised against amino acids 1-90 mapping at the N-terminus of Dysbindin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Dysbindin (B-5) is recommended for detection of Dysbindin isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Dysbindin siRNA (h): sc-60560, Dysbindin siRNA (m): sc-60561, Dysbindin siRNA (r): sc-106988, Dysbindin shRNA Plasmid (h): sc-60560-SH, Dysbindin shRNA Plasmid (m): sc-60561-SH, Dysbindin shRNA Plasmid (r): sc-106988-SH, Dysbindin shRNA (h) Lentiviral Particles: sc-60560-V, Dysbindin shRNA (m) Lentiviral Particles: sc-60561-V and Dysbindin shRNA (r) Lentiviral Particles: sc-106988-V.

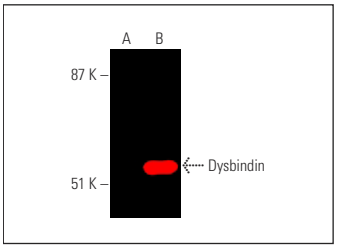
Molecular Weight of Dysbindin: 40-50 kDa.

Positive Controls: Dysbindin (m): 293T Lysate: sc-119875.

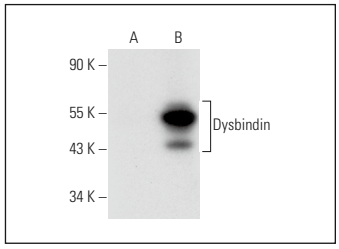
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Dysbindin (B-5): sc-398872. Near-infrared western blot analysis of Dysbindin expression in non-transfected: sc-117752 (**A**) and mouse Dysbindin transfected: sc-119875 (**B**) 293T whole cell lysates. Detection reagent used: m-IgGλ BP-CFL 790: sc-516195.



Dysbindin (B-5): sc-398872. Western blot analysis of Dysbindin expression in non-transfected: sc-117752 (**A**) and mouse Dysbindin transfected: sc-119875 (**B**) 293T whole cell lysates.

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.