SANTA CRUZ BIOTECHNOLOGY, INC.

Dysbindin (D-8): sc-390626

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. 129: 55-58.

CHROMOSOMAL LOCATION

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

SOURCE

Dysbindin (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 233-262 near the C-terminus of Dysbindin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Dysbindin (D-8) is available conjugated to agarose (sc-390626 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390626 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390626 PE), fluorescein (sc-390626 FITC), Alexa Fluor® 488 (sc-390626 AF488), Alexa Fluor® 546 (sc-390626 AF546), Alexa Fluor® 594 (sc-390626 AF594) or Alexa Fluor® 647 (sc-390626 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390626 AF680) or Alexa Fluor® 790 (sc-390626 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390626 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

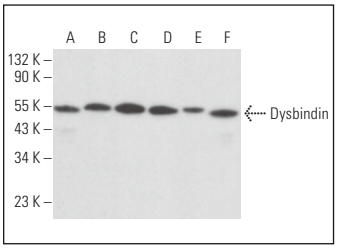
Dysbindin (D-8) is recommended for detection of Dysbindin isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

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.

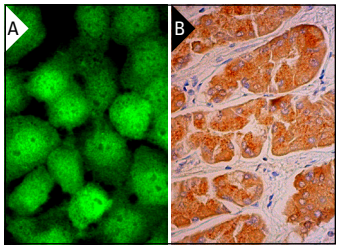
Molecular Weight of Dysbindin: 40-50 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, C2C12 whole cell lysate: sc-364188 or Jurkat whole cell lysate: sc-2204.

DATA



Dysbindin (D-8): sc-390626. Western blot analysis of Dysbindin expression in Jurkat (**A**), c4 (**B**), C2C12 (**C**), Sol8 (**D**), EOC 20 (**E**) and SUP-T1 (**F**) whole cell lysates.



Dysbindin (D-8): sc-390626. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Schmieg, N., et al. 2016. Dysbindin-1 modifies signaling and cellular localization of recombinant, human D3 and D2 receptors. J. Neurochem. 136: 1037-1051.
2. Bryan, M.M., et al. 2017. Clinical and molecular phenotyping of a child with Hermansky-Pudlak syndrome-7, an uncommon genetic type of HPS. Mol. Genet. Metab. 120: 378-383.

STORAGE

Store at 4° C, **DO 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.