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DTNBP1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16675a

Specification

DTNBP1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q96EV8

DTNBP1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 84062

Other Names
Dysbindin, Biogenesis of lysosome-related organelles complex 1 subunit 8, BLOC-1 subunit 8, Dysbindin-1, Dystrobrevin-binding protein 1, Hermansky-Pudlak syndrome 7 protein, HPS7 protein, DTNBP1, BLOC1S8

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DTNBP1 Antibody (N-term) Blocking Peptide - Protein Information

Name DTNBP1

Synonyms BLOC1S8

Function
Component of the BLOC-1 complex, a complex that is required for normal biogenesis of lysosome-related organelles (LRO), such as platelet dense granules and melanosomes. In concert with the AP-3 complex, the BLOC-1 complex is required to target membrane protein cargos into vesicles assembled at cell bodies for delivery into neurites and nerve terminals. The BLOC-1 complex, in association with SNARE proteins, is also proposed to be involved in neurite extension. Associates with the BLOC-2 complex to facilitate the transport of TYRP1 independent of AP-3 function. Plays a role in synaptic vesicle trafficking and in neurotransmitter release. Plays a role in the regulation of cell surface exposure of DRD2. May play a role in actin cytoskeleton reorganization and neurite outgrowth. May modulate MAPK8 phosphorylation. Appears to promote neuronal transmission and viability through regulating the expression of SNAP25 and SYN1, modulating PI3- kinase-Akt signaling and influencing glutamatergic release. Regulates the expression of SYN1 through binding to its promoter. Modulates prefrontal cortical activity via the dopamine/D2 pathway.

Cellular Location

[Isoform 1]: Cytoplasm. Cytoplasmic vesicle membrane; Peripheral membrane protein; Cytoplasmic side. Endosome membrane; Peripheral membrane protein; Cytoplasmic side. Melanosome membrane; Peripheral membrane protein; Cytoplasmic side. Postsynaptic density. Endoplasmic reticulum Nucleus. Note=Mainly cytoplasmic but shuttles between the cytoplasm and nucleus. Exported out of the nucleus via its NES in a XPO1-dependent manner. Nuclear localization is required for regulation of the expression of genes such as SYN1 Detected in neuron cell bodies, axons and dendrites. Mainly located to the postsynaptic density. Detected at tubulovesicular elements in the vicinity of the Golgi apparatus and of melanosomes. Occasionally detected at the membrane of pigmented melanosomes in cultured melanoma cells. The BLOC-1 complex associates with the BLOC-2 complex in early endosome-associated tubules [Isoform 3]: Cytoplasm. Cytoplasmic vesicle membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Peripheral membrane protein; Cytoplasmic side. Endosome membrane; Peripheral membrane protein; Cytoplasmic side. Melanosome membrane; Peripheral membrane protein; Cytoplasmic side. Postsynaptic cell membrane. Endoplasmic reticulum Note=Exclusivley cytoplasmic. Predominantly found in the postsynaptic density (PSD). Little association with synaptic vesicles. The BLOC-1 complex associates with the BLOC-2 complex in early endosome-associated tubules. Associated with the AP-3 complex at presynaptic terminals

Tissue Location

Detected in brain, in neurons and in neuropil. Isoform 1 is expressed in the cerebral cortex, and hippocampal frontal (HF). Specific expression in the posterior half of the superior temporal gyrus (pSTG). Higher expression of isoform 2 and 3 in the HF than in the pSTG while isoform 1 shows no difference in expression in these areas. In the HF, detected in dentate gyrus (DG) and in pyramidal cells of hippocampus CA2 and CA3 (at protein level). Expressed in all principal neuronal populations of the HF, namely pyramidal neurons in the subiculum and CA1-3, granule cells in the dense cell layer of the DG (DGg), and polymorph cells in the hilus of the DG (DGh). Maximal levels in CA2, CA3, and DGh. Isoform 2 not expressed in the cerebral cortex.

DTNBP1 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

DTNBP1 Antibody (N-term) Blocking Peptide - Images

DTNBP1 Antibody (N-term) Blocking Peptide - Background

This gene encodes a protein that may play a role inorganelle biogenesis associated with melanosomes, platelet densegranules, and lysosomes. A similar protein in mouse is a componentof a protein complex termed biogenesis of lysosome-relatedorganelles complex 1 (BLOC-1), and binds to alpha- andbeta-dystrobrevins, which are components of thedystrophin-associated protein complex (DPC). Mutations in this geneare associated with Hermansky-Pudlak syndrome type 7. This gene mayalso be associated with schizophrenia. Multiple transcript variantsencoding distinct isoforms have been identified for this gene.

DTNBP1 Antibody (N-term) Blocking Peptide - References

Haukvik, U.K., et al. Prog. Neuropsychopharmacol. Biol. Psychiatry 34(7):1259-1265(2010)Voisey, J., et al. Eur. Psychiatry 25(6):314-319(2010)Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)Hashimoto, R., et al. Nihon Shinkei Seishin Yakurigaku Zasshi 30(3):103-107(2010)Voisey, J., et al. Behav Brain Funct 6, 41 (2010) :