

Dtnbp1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2714a**Specification**

Dtnbp1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O91WZ8](#)**Dtnbp1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 94245**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 homolog, HPS7 protein homolog, Dtnbp1, Bloc1s8, Sdy

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2714a](/product/products/AP2714a) was selected from the N-term region of human Dtnbp1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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, Sdy**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 (By similarity). 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 hippocampus and dentate gyrus neurons. Detected at axon bundles and axon terminals, notably in the cerebellum and hippocampus. Detected in neuropil in hippocampus, lateral septum, basal ganglia and substantia nigra. Highly expressed in pyramidal cells of hippocampus CA2 and CA3. Detected at the heart and skeletal muscle sarcolemma (at protein level). Ubiquitously expressed The highest expression is observed in testis, liver, kidney, brain, heart and lung. Expressed at lower levels in stomach and small intestine.

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

Dtnbp1 may play a role in organelle biogenesis associated with melanosomes, platelet dense granules, and lysosomes. A similar protein in mouse is a component of a protein complex termed biogenesis of lysosome-related organelles complex 1 (BLOC-1), and binds to alpha- and beta-dystrobrevins, which are components of the dystrophin-associated protein complex (DPC). Mutations are associated with Hermansky-Pudlak syndrome type 7. This protein may also be associated with schizophrenia.

Dtnbp1 Antibody (N-term) Blocking Peptide - References

Benson M.A.,J. Biol. Chem. 276:24232-24241(2001).Li W., Nat. Genet. 35:84-89(2003).Talbot K., Hum. Mol. Genet. 15:3041-3054(2006).