

**DTNBP1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16675a****Specification**

---

**DTNBP1 Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O96EV8</a>
Other Accession	<a href="#">NP_898861.1</a> , <a href="#">NP_115498.2</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	39493
Antigen Region	10-38

**DTNBP1 Antibody (N-term) - 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

**Target/Specificity**

This DTNBP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 10-38 amino acids from the N-terminal region of human DTNBP1.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

DTNBP1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**DTNBP1 Antibody (N-term) - 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=Exclusively 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.

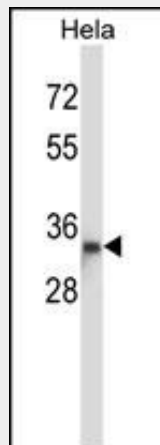
## DTNBP1 Antibody (N-term) - Protocols

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

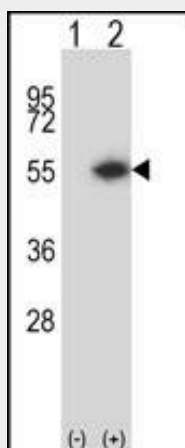
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### DTNBP1 Antibody (N-term) - Images



DTNBP1 Antibody (N-term) (Cat. #AP16675a) western blot analysis in HeLa cell line lysates (35ug/lane). This demonstrates the DTNBP1 antibody detected the DTNBP1 protein (arrow).



Western blot analysis of DTNBP1 (arrow) using rabbit polyclonal DTNBP1 Antibody (N-term) (Cat. #AP16675a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the DTNBP1 gene.

#### DTNBP1 Antibody (N-term) - Background

This gene encodes a protein that 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 in this gene are associated with Hermansky-Pudlak syndrome type 7. This gene may also be associated with schizophrenia. Multiple transcript variants encoding distinct isoforms have been identified for this gene.

#### DTNBP1 Antibody (N-term) - 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) :