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OPTN Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP17993c

Specification

OPTN Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q96CV9

OPTN Antibody (Center) Blocking Peptide - Additional Information

Gene ID 10133

Other Names
Optineurin, E3-147K-interacting protein, FIP-2, Huntingtin yeast partner L, Huntingtin-interacting protein 7, HIP-7, Huntingtin-interacting protein L, NEMO-related protein, Optic neuropathy-inducing protein, Transcription factor IIIA-interacting protein, TFIIIA-IntP, OPTN, FIP2, GLC1E, HIP7, HYPL, NRP

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.

OPTN Antibody (Center) Blocking Peptide - Protein Information

Name OPTN

Function
Plays an important role in the maintenance of the Golgi complex, in membrane trafficking, in exocytosis, through its interaction with myosin VI and Rab8 (PubMed:27534431). Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation (PubMed:27534431). Plays a role in the activation of innate immune response during viral infection. Mechanistically, recruits TBK1 at the Golgi apparatus, promoting its trans-phosphorylation after RLR or TLR3 stimulation (PubMed:27538435). In turn, activated TBK1 phosphorylates its downstream partner IRF3 to produce IFN-beta/IFNB1. Plays a neuroprotective role in the eye and optic nerve. May act by regulating membrane trafficking and cellular morphogenesis via a complex that contains Rab8 and hungtingtin (HD). Mediates the interaction of Rab8 with the probable GTPase-activating protein TBC1D17 during Rab8-mediated endocytic trafficking, such as that of transferrin receptor (TFRC/TfR); regulates Rab8 recruitment to tubules emanating from the endocytic recycling compartment (PubMed:22854040). Autophagy

receptor that interacts directly with both the cargo to become degraded and an autophagy modifier of the MAP1 LC3 family; targets ubiquitin- coated bacteria (xenophagy), such as cytoplasmic Salmonella enterica, and appears to function in the same pathway as SQSTM1 and CALCOCO2/NDP52.

Cellular Location
Cytoplasm, perinuclear region. Golgi apparatus. Golgi apparatus, trans-Golgi network Cytoplasmic vesicle, autophagosome. Cytoplasmic vesicle. Recycling endosome. Note=Found in the perinuclear region and associates with the Golgi apparatus (PubMed:27534431) Colocalizes with MYO6 and RAB8 at the Golgi complex and in vesicular structures close to the plasma membrane. Localizes to LC3-positive cytoplasmic vesicles upon induction of autophagy

Tissue Location
Present in aqueous humor of the eye (at protein level). Expressed in the trabecular meshwork (at protein level) (PubMed:11834836, PubMed:12379221, PubMed:12646749). Expressed in nonpigmented ciliary epithelium (at protein level) (PubMed:11834836) Expressed at high levels in skeletal muscle, also detected in heart, brain, pancreas, kidney, placenta and liver (PubMed:9488477). Expressed in dermal fibroblasts (at protein level) (PubMed:11834836)

OPTN Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

OPTN Antibody (Center) Blocking Peptide - Images

OPTN Antibody (Center) Blocking Peptide - Background

This gene encodes the coiled-coil containing proteinoptineurin. Optineurin may play a role in normal-tension glaucomaand adult-onset primary open angle glaucoma. Optineurin interactswith adenovirus E3-14.7K protein and may utilize tumor necrosisfactor-alpha or Fas-ligand pathways to mediate apoptosis,inflammation or vasoconstriction. Optineurin may also function incellular morphogenesis and membrane trafficking, vesicletrafficking, and transcription activation through its interactionswith the RAB8, huntingtin, and transcription factor IIIA proteins.Alternative splicing results in multiple transcript variantsencoding the same protein.

OPTN Antibody (Center) Blocking Peptide - References

McDonald, K.K., et al. J. Hum. Genet. 55(10):697-700(2010)Cheng, J.W., et al. Med. Sci. Monit. 16 (8), CR369-CR377 (2010) :Albagha, O.M., et al. Nat. Genet. 42(6):520-524(2010)Maruyama, H., et al. Nature 465(7295):223-226(2010)Park, B., et al. PLoS ONE 5 (7), E11547 (2010) :