

OPTN Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17993C

Specification

OPTN Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q96CV9
Other Accession	Q8R5M4 , NP_068815.2
Reactivity	Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	65922
Antigen Region	71-96

OPTN Antibody (Center) - 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

Target/Specificity

This OPTN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 71-96 amino acids from the Central region of human OPTN.

Dilution

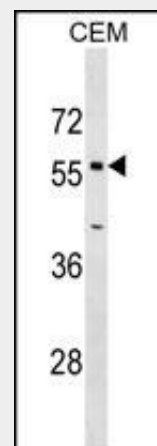
WB~~1:1000

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



OPTN Antibody (Center) (Cat. #AP17993c) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the OPTN antibody detected the OPTN protein (arrow).

OPTN Antibody (Center) - Background

This gene encodes the coiled-coil containing protein optineurin. Optineurin may play a role in normal-tension glaucoma and adult-onset primary open angle glaucoma. Optineurin interacts with adenovirus E3-14.7K protein and may utilize tumor necrosis factor-alpha or Fas-ligand pathways to mediate apoptosis, inflammation or vasoconstriction. Optineurin may also function in cellular morphogenesis and membrane trafficking, vesicle trafficking, and transcription activation through its interactions with the RAB8, huntingtin, and transcription factor IIIA proteins. Alternative splicing results in multiple transcript variants encoding the same protein.

OPTN Antibody (Center) - References

weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

OPTN Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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) :

OPTN Antibody (Center) - Protein Information

Name OPTN

Synonyms FIP2, GLC1E, HIP7, HYPL, NRP

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. 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 of transferrin receptor (TFRC/TfR); regulates Rab8 recruitment to tubules emanating from the endocytic recycling compartment. 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). Highly expressed in trabecular meshwork. Expressed nonpigmented ciliary epithelium, retina, brain, adrenal cortex, fetus, lymphocyte, fibroblast, skeletal muscle, heart, liver, brain and placenta

OPTN Antibody (Center) - 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](#)