

**OPTN / Optineurin Antibody (aa559-575)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS12644****Specification**

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**OPTN / Optineurin Antibody (aa559-575) - Product Information**

Application	IHC
Primary Accession	<a href="#">Q96CV9</a>
Reactivity	Human, Mouse, Rat, Rabbit, Monkey, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66kDa KDa

**OPTN / Optineurin Antibody (aa559-575) - Additional Information****Gene ID** 10133**Other Names**

Optineurin, E3-14.7K-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**

Recognizes human, mouse and rat optineurin.

**Format**

TBS, pH 7.4, 0.5 mg/ml BSA, 0.02% sodium azide, 50% glycerol.

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions**

OPTN / Optineurin Antibody (aa559-575) is for research use only and not for use in diagnostic or therapeutic procedures.

**OPTN / Optineurin Antibody (aa559-575) - 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:<a href="http://www.uniprot.org/citations/27534431" target="\_blank">27534431</a>). Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation (PubMed:<a href="http://www.uniprot.org/citations/27534431" target="\_blank">27534431</a>). 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:<a href="http://www.uniprot.org/citations/27538435" target="\_blank">27538435</a>). 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:<a href="http://www.uniprot.org/citations/22854040" target="\_blank">22854040</a>). 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)

#### **Volume**

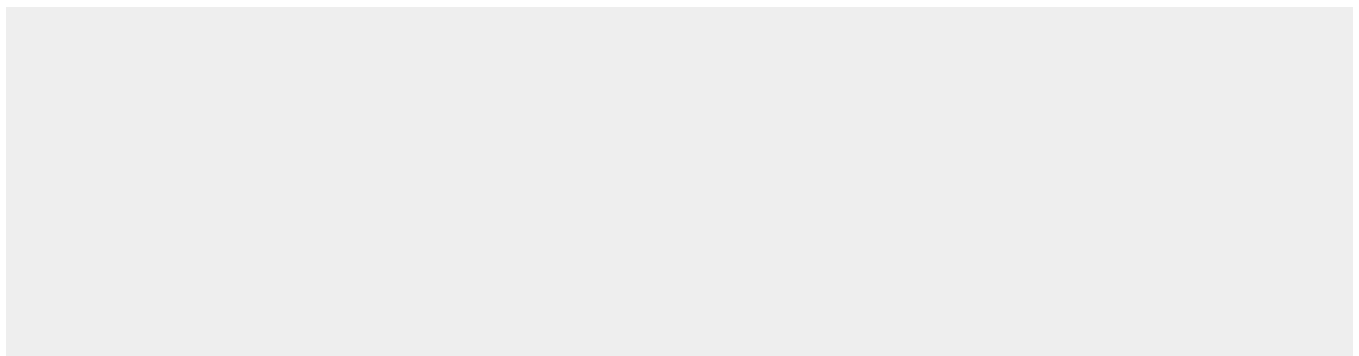
Array

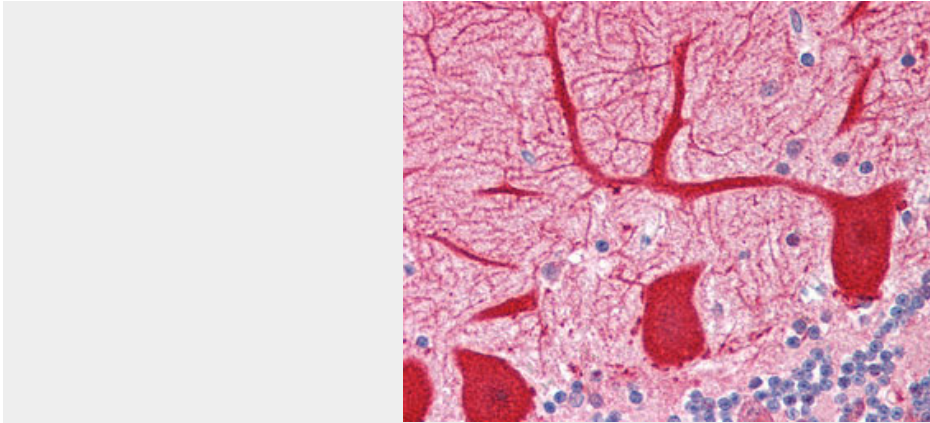
### **OPTN / Optineurin Antibody (aa559-575) - Protocols**

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](#)

### **OPTN / Optineurin Antibody (aa559-575) - Images**





Anti-Optineurin antibody IHC of human brain, cerebellum.

### **OPTN / Optineurin Antibody (aa559-575) - Background**

Plays an important role in the maintenance of the Golgi complex, in membrane trafficking, in exocytosis, through its interaction with myosin VI and Rab8. Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation. Negatively regulates the induction of IFNB in response to RNA virus infection. Plays a neuroprotective role in the eye and optic nerve. Probably part of the TNF-alpha signaling pathway that can shift the equilibrium toward induction of cell death. May act by regulating membrane trafficking and cellular morphogenesis via a complex that contains Rab8 and huntingtin (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. May constitute a cellular target for adenovirus E3 14.7, an inhibitor of TNF-alpha functions, thereby affecting cell death.

### **OPTN / Optineurin Antibody (aa559-575) - References**

- Li Y., et al. Mol. Cell. Biol. 18:1601-1610(1998).
- Rezaie T., et al. Science 295:1077-1079(2002).
- Li D., et al. Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
- Ota T., et al. Nat. Genet. 36:40-45(2004).
- Deloukas P., et al. Nature 429:375-381(2004).