

Anti-Optineurin Picoband Antibody
Catalog # ABO12034**Specification****Anti-Optineurin Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	Q96CV9
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Optineurin(OPTN) detection. Tested with WB, IHC-P in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Optineurin Picoband Antibody - 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

Calculated MW

65921 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cytoplasm, perinuclear region. Golgi apparatus. Golgi apparatus, trans-Golgi network. Cytoplasmic vesicle, autophagosome. Cytoplasmic vesicle. Recycling endosome. Found in the perinuclear region and associates with the Golgi apparatus. 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 Specificity

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. .

Protein Name

Optineurin

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human Optineurin recombinant protein (Position: R241-I577). Human Optineurin shares 82% amino acid (aa) sequence identity with both mouse and rat Optineurin.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Optineurin Picoband Antibody - 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](http://www.uniprot.org/citations/27534431)). Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation (PubMed: [27534431](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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 huntingtin (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](http://www.uniprot.org/citations/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

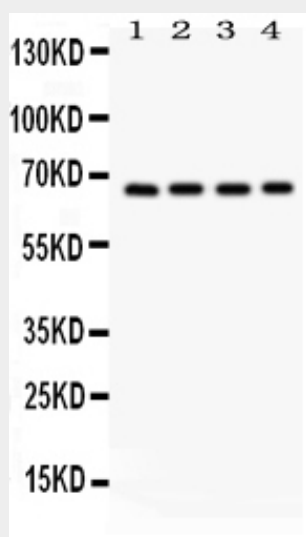
(PubMed:9488477). Expressed in dermal fibroblasts (at protein level) (PubMed:11834836)

Anti-Optineurin Picoband Antibody - Protocols

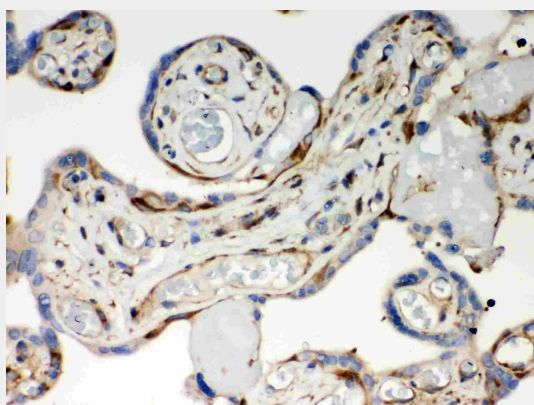
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Optineurin Picoband Antibody - Images



Anti- Optineurin Picoband antibody, ABO12034, Western blottingAll lanes: Anti Optineurin (ABO12034) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: U87 Whole Cell Lysate at 40ugLane 3: SMMC Whole Cell Lysate at 40ugLane 4: HT1080 Whole Cell Lysate at 40ugPredicted bind size: 66KDObserved bind size: 66KD



Anti- Optineurin Picoband antibody, ABO12034, IHC(P)IHC(P): Human Placenta Tissue

Anti-Optineurin Picoband Antibody - Background

OPTN is also known as NRP, FIP2 or HYPL. 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.