

Anti-Optineurin Picoband Antibody

Catalog # ABO12034

Product Information

Application	WB, IHC-P
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.

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	65922
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. .
Source	Eukaryota
Protein Name	Optineurin

Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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 r ° Constitution, 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.

Protein Information

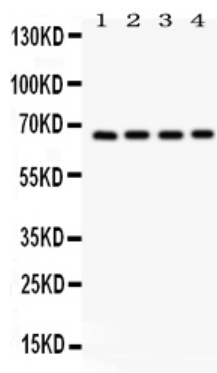
Name	OPTN
Function	Plays an important role in the maintenance of the Golgi complex, in membrane trafficking, in exocytosis, through its interaction with myosin VI and Rab8 (PubMed:27534431). Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation (PubMed:27534431). 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 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). 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)

Background

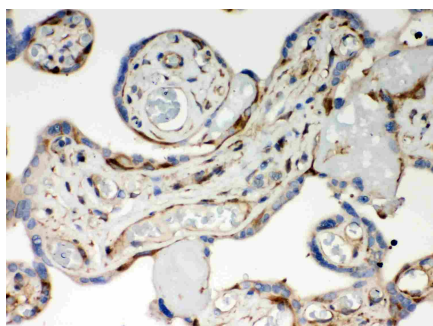
OPTN is also known as NRP, FIP2 or HYPL. This gene encodes the coiled-coil containing protein optineurin. Optineurin may play a role in normal-tension glaucoma and adult-onset primary open angle glaucoma. Optineurin interacts with adenovirus E3-14.7K protein and may utilize tumor necrosis factor-alpha 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.

Images



Anti- Optineurin Picoband antibody, ABO12034, Western blotting
All lanes: Anti Optineurin (ABO12034) at 0.5ug/ml
Lane 1: HELA Whole Cell Lysate at 40ug
Lane 2: U87 Whole Cell Lysate at 40ug
Lane 3: SMMC Whole Cell Lysate at 40ug
Lane 4: HT1080 Whole Cell Lysate at 40ug
Predicted bind size: 66KD
Observed bind size: 66KD



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.