

Rabbit OPTN Polyclonal Antibody | anti-OPTN antibody

OPTN Antibody

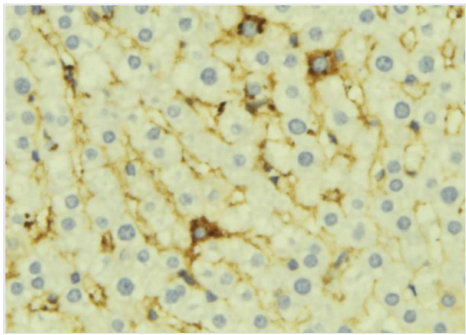
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326420	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

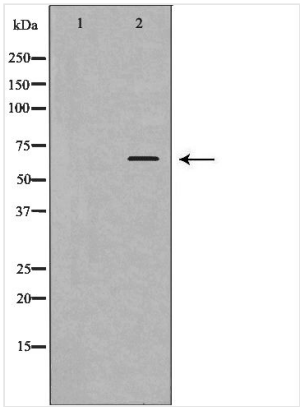
OPTN; Polyclonal Antibody; OPTN Antibody; 14.7K interacting protein; Ag9 C5; ALS12; E3 14.7K interacting protein; E3-14.7K-interacting protein; FIP 2; FIP-2; FIP2; Glaucoma 1 open angle E (adult onset); Glaucoma 1 open angle E; GLC1E; HIP 7; HIP-7; HIP7; Huntingtin interacting protein 7; Huntingtin interacting protein HYPL; Huntingtin interacting protein L; Huntingtin yeast partner L; Huntingtin-interacting protein 7; Huntingtin-interacting protein L; HYPL; Injury inducible protein I 55; NEMO related protein; NEMO-related protein; NRP; Optic neuropathy inducing protein; Optic neuropathy-inducing protein; Optineurin; OPTN_HUMAN; TFIIIA IntP; TFIIIA-IntP; Transcription factor IIIA interacting protein; Transcription factor IIIA-interacting protein; Tumor necrosis factor alpha inducible cellular protein containing leucine zipper domains; anti-OPTN antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	OPTN antibody detects endogenous levels of total OPTN
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	577
Applicable Applications for anti-OPTN antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human OPTN
Subcellular Location	Cytoplasm > Perinuclear Region. Golgi Apparatus. Golgi Apparatus > Trans-Golgi Network. 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.
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.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (92%), Bovine (92%), Horse (100%), Sheep (92%), Rabbit (100%), Dog (100%), Chicken (85%), Xenopus (83%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326420 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Mouse brain lysate, using OPTN Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-OPTN antibody

Description: 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.

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 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.

Subunit Structure: Interacts with HD, Rab8 (RAB8A and/or RAB8B) (active GTP-bound form), GTF3A, TRAF3, TBK1, MYO6 and TFRC. Binds to linear ubiquitin chains. Interacts with LC3 family members MAP1LC3A, MAP1LC3B, GABARAP, GABARAPL1 and GABARAPL2; OPTN phosphorylation increases the association (at least with MAP1LC3B). Self-associates. Interacts with RAB12; the interaction may be indirect. Interacts with TBK1; this interaction leads to the Golgi localization of TBK1 and its subsequent activation.

Post-translational Modifications: Phosphorylated by TBK1, leading to restrict bacterial proliferation in case of infection. Phosphorylation is induced by phorbol esters and decreases its half-time.

Similarity: Ubiquitin-binding motif (UBAN) is essential for its inhibitory function, subcellular localization and interaction with TBK1. The LIR (LC3-interacting region) motif mediates the interaction with ATG8 family proteins.

NCBI AND UNIPROT INFORMATION

NCBI GI #	56549107
NCBI GeneID	10133
NCBI Accession #	NP_001008212.1
NCBI GenBank Nucleotide #	NM_001008211.1
UniProt Accession #	Q96CV9; Q5T672; Q5T673; Q5T674; Q5T675; Q7LDL9; Q8N562; Q9UET9; Q9UEV4; B3KP00; D3DRS4; D3DRS8

Molecular Weight	Observed: 66 kDa Predicted: 66 kDa
NCBI Official Full Name	optineurin
NCBI Official Synonym Full Names	optineurin
NCBI Official Symbol	OPTN
NCBI Official Synonym Symbols	NRP; FIP2; HIP7; HYPL; ALS12; GLC1E; TFIIIA-INTP
NCBI Protein Information	optineurin
UniProt Protein Name	Optineurin
UniProt Gene Name	OPTN
UniProt Synonym Gene Names	FIP2; GLC1E; HIP7; HYPL; NRP; HIP-7; TFIIIA-IntP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/optn-antibody-immunohistochemistry-western-blot-elisa/326420>