Optineurin (OPTN) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Optineurin (OPTN), Polyclonal Antibody
Full Product Name	FITC-Linked Polyclonal Antibody to Optineurin (OPTN)
Product Gene Name	anti-OPTN antibody
Product Synonym Names	NRP; FIP2; GLC1E; HIP7; HYPL; TFIIIA-INTP; Glaucoma 1, Open Angle, E (Adult-Onset); Huntingtin-interacting protein 7; Optic neuropathy-inducing protein; E3-14.7K-interacting protein
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Mouse, Human, Rat
Concentration	500ug/ml (lot specific)
Matching Pairs	Unconjugated Antibody: OPTN (MBS2027726) FITC Conjugated Antibody: OPTN (MBS2067673)
Matching Pairs	FITC Conjugated Antibody: OPTN (MBS2067673) Immunogen: OPTN (MBS2031022)
Molecular Weight	59,559 Da
OMIM	AF061034 mRNA
3D Structure	ModBase 3D Structure for Q96CV9
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Immunogen	OPTN (Met1~Ser300)
Conjugation	FITC
Cross Reactivity	Human, Mouse
Unconjugated Antibody	The unconjugated antibody version of this item is also available as catalog #MBS2027726
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-OPTN antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunohistochemistry (IHC) Formalin/Paraffin, ELISA (ELISA)
Related Product Information for anti-OPTN antibody	MBS2067673 is an antibody targeting OPTN. Also known as FITC-Linked Polyclonal Antibody to Optineurin (OPTN). Reactive in Mouse, Human, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-OPTN antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OPTN. It may not necessarily be applicable to this product.

NCBI GI #	56549111
NCBI GeneID	10133

NCBI Accession #	NP_001008214.1
UniProt Primary Accession #	Q96CV9
UniProt Secondary Accession #	Q5T672; Q5T673; Q5T674; Q5T675; Q7LDL9; Q8N562; Q9UET9; Q9UEV4; B3KP00; D3DRS4; D3DRS8
UniProt Related Accession #	Q96CV9
GenBank Nucleotide #	NM_001008213.1
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
UniProt Protein Name	Optineurin
UniProt Synonym Protein Names	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
Protein Family	Optineurin
UniProt Gene Name	OPTN
UniProt Synonym Gene Names	FIP2; GLC1E; HIP7; HYPL; NRP; HIP-7; TFIIIA-IntP
NCBI Protein Information	optineurin
NCBI Summary for OPTN	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. [provided by RefSeq, Jul 2008]

UniProt Comments for OPTN	optineurin: 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 hungtingtin (HD). May constitute a cellular target for adenovirus E3 14.7, an inhibitor of TNF-alpha functions, thereby affecting cell death. Defects in OPTN are the cause of primary open angle glaucoma type 1E (GLC1E). Primary open angle glaucoma (POAG) is characterized by a specific pattern of optic nerve and visual field defects. The angle of the anterior chamber of the eye is open, and usually the intraocular pressure is increased. The disease is asymptomatic until the late stages, by which time significant and irreversible optic nerve damage has already taken place. Defects in OPTN are a cause of susceptibility to normal pressure glaucoma (NPG). Defects in OPTN are the cause of amyotrophic lateral sclerosis type 12 (ALS12). It is a neurodegenerative disorder affecting upper motor neurons in the brain and lower motor neurons in the brain stem and spinal cord, resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of amyotrophic lateral sclerosis is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of the cases. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Inhibitor Chromosomal Location of Human Ortholog: 10p13 Cellular Component: cytoplasm; cytosol; Golgi apparatus; Golgi membrane; nucleoplasm; nucleus; trans-Golgi network Molecular Function: identical protein binding; polyubiquitin binding; protein binding; protein binding, bridging; protein C-terminus binding; Rab GTPase binding Biological Process: cell death; defense response to Gram-negative bacterium; G2/M transition of mitotic cell cycle; Golgi organization and biogenesis; Golgi to plasma membrane protein transport; macroautophagy; negative regulation of receptor recycling; protein targeting to Golgi; regulation of I-kappaB kinase/NF-kappaB cascade; signal transduction Disease: Amyotrophic Lateral Sclerosis 12; Glaucoma, Normal Tension, Susceptibility To; Glaucoma, Primary Open Angle
Research Articles on OPTN	**1.** ALS-linked mutations in OPTN and TBK1 can interfere with mitophagy, suggesting that inefficient turnover of damaged mitochondria may represent a key pathophysiological mechanism contributing to neurodegenerative disease.
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