OPTN Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	OPTN, Polyclonal Antibody
Full Product Name	Rabbit anti-Homo sapiens (Human) OPTN Polyclonal Antibody
Product Gene Name	anti-OPTN antibody
Product Synonym Names	OPTN Antibody; 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
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Homo sapiens (Human)
Form/Format	Liquid Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH7.4
Purity/Purification	Antigen-affinity
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	577
OMIM	phenotype 613435
3D Structure	ModBase 3D Structure for Q96CV9
Immunogen	Recombinant Homo sapiens OPTN protein
Conjugation	Non-conjugate
Modification	Unmodified
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-OPTN antibody	ELISA (EIA), WB (Western Blot) (ensure identification of antigen)
Related Product Information for anti-OPTN antibody	MBS7140911 is an antibody targeting OPTN. Also known as Rabbit anti-Homo sapiens (Human) OPTN Polyclonal Antibody. Reactive in Homo sapiens (Human). 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 #	317373403
NCBI GeneID	10133
NCBI Accession #	Q96CV9.2

UniProt Primary Accession #	Q96CV9
UniProt Secondary Accession #	Q5T672; Q5T673; Q5T674; Q5T675; Q7LDL9; Q8N562; Q9UET9; Q9UEV4; B3KP00; D3DRS4; D3DRS8
UniProt Related Accession #	Q96CV9
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
UniProt Entry Name	OPTN_HUMAN
NCBI Protein Information	optineurin; FIP-2; HIP-7; nemo-related protein; huntingtin yeast partner L; E3-14.7K-interacting protein; Huntingtin interacting protein L; huntingtin-interacting protein 7; huntingtin-interacting protein L; optic neuropathy-inducing protein; transcrption
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: nucleoplasm; Golgi membrane; Golgi apparatus; recycling endosome; perinuclear region of cytoplasm; cytoplasmic membrane-bound vesicle; cytoplasm; autophagic vacuole; trans-Golgi network; cytosol; nucleus Molecular Function: protein C-terminus binding; protein binding; polyubiquitin binding; Rab GTPase binding Biological Process: cell death; macroautophagy; Golgi to plasma membrane protein transport; negative regulation of receptor recycling; protein targeting to Golgi; mitotic cell cycle; negative regulation of I-kappaB kinase/NF-kappaB cascade; signal transduction; defense response to Gram-negative bacterium; G2/M transition of mitotic cell cycle; regulation of I-kappaB kinase/NF-kappaB cascade; Golgi organization and biogenesis Disease: Glaucoma, Normal Tension, Susceptibility To; Glaucoma, Primary Open Angle; Amyotrophic Lateral Sclerosis 12
Research Articles on OPTN	**1.** that the loss-of-function, but not the proteinopathy itself, of OPTN leads to multisystem neurodegeneration.
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