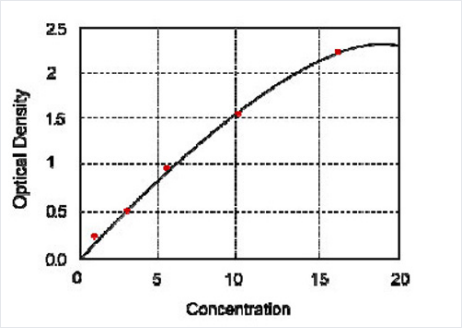
Optineurin (OPTN) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Optineurin (OPTN), ELISA Kit
Full Product Name	Human Optineurin (OPTN) ELISA Kit
Product Gene Name	OPTN elisa kit
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Serum, plasma, cell culture supernates, Ascites, tissue homogenates or other biological fluids
Detection Range	0.05-30ng/ml
Sensitivity	0.024ng/ml
Preparation and Storage	Store at 2 to 8 degree C for 6 months.
Inter-assay Precision	Inter-Assay Precision (Precision between assays) Three samples of known concentration were tested in separate assays to assess inter-assay precision. CV(%) = SD/mean x 100. Inter-Assay: CV<10%
Intra-assay Precision	Intra-Assay Precision (Precision within an assay) Three samples of known concentration were tested on one plate to assess intra-assay precision. Intra-Assay: CV<8%
Molecular Weight	65,203 Da
3D Structure	ModBase 3D Structure for Q96CV9
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for OPTN elisa kit	Principle of the Assay: This kit is an Enzyme-Linked Immunosorbent Assay (ELISA). The plate has been pre-coated with Human OPTN antibody. OPTN present in the sample is added and binds to antibodies coated on the wells. And then biotinylated Human OPTN Antibody is added and binds to OPTN in the sample. Then Streptavidin-HRP is added and binds to the Biotinylated OPTN antibody. After incubation unbound Streptavidin-HRP is washed away during a washing step. Substrate solution is then added and color develops in proportion to the amount of Human OPTN. The reaction is terminated by addition of acidic stop solution and absorbance is measured at 450 nm. Intended Uses: This sandwich kit is for the accurate quantitative detection of Human Optineurin (also known as OPTN) in serum, plasma, cell culture supernates, Ascites, tissue homogenates or other biological fluids.
Other Notes	Small volumes of OPTN elisa kit 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.
Searchable Terms for OPTN purchase	MBS166924 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Optineurin (OPTN) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing OPTN. The ELISA analytical biochemical technique of the MBS166924 kit is based on OPTN antibody-OPTN antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect OPTN antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, OPTN. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of OPTN elisa kit

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	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 hungtingtin (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.
Research Articles on OPTN	**1.** Immunohistochemical analyses of motor neurons from OPTN-associated amyotrophic lateral sclerosis patients reveal that linear ubiquitin and activated NF-kappaB are partially co-localized with cytoplasmic inclusions, and that activation of caspases is elevated.
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