# Optineurin (OPTN) Mouse Recombinant Protein

## PRODUCT OVERVIEW

| | |
|---|---|
| **Product Name** | Optineurin (Optn), Recombinant Protein |
| **Full Product Name** | Recombinant Mouse Optineurin (Optn) |
| **Product Gene Name** | Optn recombinant protein |
| **Product Synonym Gene Name** | Optn |
| **Sequence** | MSHQPLSCLT EKGDSPCETP GNGPSNMVHP SLDTFTPEEL LQQMKELLVE NHQLKEAMKL NNQAMKGRFE ELSAWTEKQK EERLLFEMQS KEVKERLKAL THENERLKEE LGKFKEKSEK PLEDLTGGYR YPRALEEEVE KLKTQVEQEV EHLKIQVMRL RAEKADLLGI VSELQLKLNS GGSSEDSFVE IRMTEGETEG AMKEMKNCPT PTRTDPISLS NCTEDARSCA EFEELTVSQL LLCLREGNQK VERLEVALRE AKERISDFEK KANGHSSTEK QTARRADREK EDKGQESVGS EVETLSIQVT SLFKELQEAH TKLSEAELMK KRLQEKCQAL ERKNSATPSE LNEKQELVYS NKKLELQVES MRSEIKMEQA KTEEEKSRLA TLQATHNKLL QEHNKALKTI EELTKQQAEK VDKMLLQELS EKLELAEQAL ASKQLQMDEM KQTLAKQEED LETMAVLRAQ MEVYCSDFHA ERAAREKIHE EKEQLALQLA ILLKENNDIE EGGSRQSLME MQCRHGARTS DSDQQTYLFQ RGAEDRSWQH GQQPRSIPIH SCPKCGEVLP DIDTLQIHVM DCII |
| **Host** | E Coli or Yeast or Baculovirus or Mammalian Cell |
| **Form/Format** | Lyophilized or liquid (Format to be determined during the manufacturing process) |
| **Purity/Purification** | Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific) |
| **Preparation and Storage** | Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended. |
| **Molecular Weight** | 67,018 Da |
| **Sequence Positions** | 1-584, Full length protein |
| **Tag Information** | This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information. |
| **Sterility** | Sterile filter available upon request. |
| **Endotoxin** | Low endotoxin available upon request. |
| **3D Structure** | ModBase 3D Structure for Q8K3K8 |
| **Species** | Mouse |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Related Product Information for Optn recombinant protein** | 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. |
| **Other Notes** | Small volumes of Optn recombinant protein 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** | MBS1420868 is a recombinant protein targeting Optn. Also known as Recombinant Mouse Optineurin (Optn). Host: E Coli or Yeast or Baculovirus or Mammalian Cell. |

## ADDITIONAL DETAILS

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

| | |
|---|---|
| **NCBI GI #** | 32469491 |
| **NCBI GeneID** | 71648 |
| **NCBI Accession #** | NP_862896.1 |
| **UniProt Primary Accession #** | Q8K3K8 |
| **UniProt Secondary Accession #** | A2ASP3 |
| **UniProt Related Accession #** | Q8K3K8 |
| **GenBank Nucleotide #** | NM_181848.5 |
| **NCBI Official Full Name** | optineurin |
| **NCBI Official Synonym Full Names** | optineurin |
| **NCBI Official Symbol** | Optn |
| **NCBI Official Synonym Symbols** | NRP; FIP2; HYPL; 4930441O07Rik |
| **UniProt Protein Name** | Optineurin |
| **Protein Family** | Optineurin |
| **UniProt Gene Name** | Optn |
| **NCBI Protein Information** | optineurin |
| **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. Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation. 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. 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 recruitnment 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. May constitute a cellular target for adenovirus E3 14.7, an inhibitor of TNF-alpha functions, thereby affecting cell death. |
| **Research Articles on Optn** | **1.** These results suggest that the IRAK1-binding protein OPTN negatively regulates IL-1beta/LPS-induced NF-kappaB activation by preventing polyubiquitination of TRAF6. |
| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |
| **Disclaimer** | While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice.<br><br>It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information. |

| | |
|---|---|
| **Product Note** | Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details. |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures.

**MyBioSource** | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/recombinant-protein/optineurin-optn/1420868