Ub Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Ub, Recombinant Protein
Full Product Name	Recombinant Human Ub protein (His tag)
Product Gene Name	Ub recombinant protein
Product Synonym Names	Polyubiquitin-B; UBB; Ubiquitin; Ubiquitin B
Sequence	Lys103-Cys 229
Host	E coli
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Purity/Purification	>95% as determined by reducing SDS-PAGE.
Preparation and Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months.
Molecular Weight	229
OMIM	191339
3D Structure	ModBase 3D Structure for P0CG47
Species	Human
Tag	N-His
Endotoxin	<10EU/mg of the protein as determined by the LAL method.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5mg/mL. Concentration is measured by UV-Vis.
Product Categories/Family for Ub recombinant protein	Proteins; Recombinant Proteins; Others; Cell biology; Neuroscience; Epigenetics and nuclear signal
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Ub recombinant protein	Polyubiquitin-B(UBB) is one of Ubiquitins. Ubiquitin is one of the most conserved proteins known in eukaryotic organisms. Ubiquitin is required for ATP-dependent, non-lysosomal intracellular protein degradation of abnormal proteins and normal proteins with a rapid turnover. Ubiquitin is covalently bound to proteins to be degraded, and presumably labels these proteins for degradation.
Other Notes	Small volumes of Ub 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 Ub purchase	MBS2580499 is a recombinant protein targeting Ub. Also known as Recombinant Human Ub protein (His tag). Host: E coli.

ADDITIONAL DETAILS

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

NCBI GI #	302595875

NCBI GeneID	7314
NCBI Accession #	P0CG47.1
UniProt Primary Accession #	P0CG47
UniProt Secondary Accession #	P02248; P02249; P02250; P62988; Q29120; Q6LBL4; Q6LDU5; Q8WYN8; Q91887; Q91888; Q9BWD6
UniProt Related Accession #	P0CG47
NCBI Official Full Name	Polyubiquitin-B
NCBI Official Synonym Full Names	ubiquitin B
NCBI Official Symbol	UBB
UniProt Protein Name	Polyubiquitin-B
Protein Family	UBA domain-containing protein
UniProt Gene Name	UBB
UniProt Entry Name	UBB_HUMAN
NCBI Protein Information	polyubiquitin-B; polyubiquitin B
NCBI Summary for Ub	This gene encodes ubiquitin, one of the most conserved proteins known. Ubiquitin has a major role in targeting cellular proteins for degradation by the 26S proteosome. It is also involved in the maintenance of chromatin structure, the regulation of gene expression, and the stress response. Ubiquitin is synthesized as a precursor protein consisting of either polyubiquitin chains or a single ubiquitin moiety fused to an unrelated protein. This gene consists of three direct repeats of the ubiquitin coding sequence with no spacer sequence. Consequently, the protein is expressed as a polyubiquitin precursor with a final amino acid after the last repeat. An aberrant form of this protein has been detected in patients with Alzheimer's disease and Down syndrome. Pseudogenes of this gene are located on chromosomes 1, 2, 13, and 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

UniProt Comments for Ub	UBB: Ubiquitin exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11-linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell-cycle regulation; Lys-29-linked is involved in lysosomal degradation; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling. Belongs to the ubiquitin family. Protein type: Apoptosis; Ubiquitin-like modifier; Cell development/differentiation; Cell cycle regulation; Transcription regulation; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 17p12-p11.2 Cellular Component: nucleoplasm; neuron projection; cell soma; mitochondrion; plasma membrane; endosome membrane; cytosol Molecular Function: protein binding Biological Process: circadian rhythm; I-kappaB kinase/NF-kappaB cascade; negative regulation of ubiquitin-protein ligase activity during mitotic cell cycle; protein polyubiquitination; nerve growth factor receptor signaling pathway; viral reproduction; positive regulation of apoptosis; activation of MAPK activity; stress-activated MAPK cascade; toll-like receptor 3 signaling pathway; endosome transport; T cell receptor signaling pathway; DNA damage response, signal transduction by p53 class mediator resulting in cell cycle arrest; activation of NF-kappaB transcription factor; mitochondrion transport along microtubule; regulation of apoptosis; toll-like receptor 5 signaling pathway; antigen processing and presentation of peptide antigen via MHC class I; regulation of mitochondrial membrane potential; transforming growth factor beta receptor signaling pathway; JNK cascade; antigen processing and presentation of exogenous peptide antigen via MHC class I; G2/M transition of mitotic cell cycle; toll-like receptor 4 signaling pathway; regulation of interferon type I production; glycogen biosynthetic process; fibroblast growth factor receptor signaling pathway; positive regulation of I-kappaB kinase/NF-kappaB cascade; transcription, DNA-dependent; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; glucose metabolic process; Notch receptor processing; virus assembly; toll-like receptor 2 signaling pathway; carbohydrate metabolic process; viral protein processing; positive regulation of transcription from RNA polymerase II promoter; toll-like receptor 9 signaling pathway; negative regulation of interferon type I production; negative regulation of apoptosis; G1/S transition of mitotic cell cycle; positive regulation of ubiquitin-protein ligase activity during mitotic cell cycle; negative regulation of epidermal growth factor receptor signaling pathway; apoptosis; pathogenesis; negative regulation of transcription from RNA polymerase II promoter; viral infectious cycle; toll-like receptor 10 signaling pathway; anaphase-promoting complex-dependent proteasomal ubiquitin-dependent protein catabolic process; positive regulation of interferon type I production; transmembrane transport; epidermal growth factor receptor signaling pathway; transcription initiation from RNA polymerase II promoter; Notch signaling pathway; cytokine and chemokine mediated signaling pathway; MyD88-independent toll-like receptor signaling pathway; DNA repair; MyD88-dependent toll-like receptor signaling pathway; regulation of ubiquitin-protein ligase activity during mitotic cell cycle; toll-like receptor signaling pathway; innate immune response; gene expression; mitotic cell cycle; negative regulation of transforming growth factor beta receptor signaling pathway; neurite morphogenesis Disease: Cleft Palate, Isolated
Research Articles on Ub	**1.** UbB was significantly increased in prolonged Trichostatin A-selected HeLa cells and it played a key role in the maintenance of cervical cancer stem-like cells
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. 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/ub/2580499