B2M Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	B2M, Recombinant Protein
Full Product Name	Recombinant Human B2M Protein
Product Gene Name	B2M recombinant protein
Product Synonym Names	Beta-2-microglobulin
Sequence	IQRTPKIQVY SRHPAENGKS NFLNCYVSGF HPSDIEVDLL KNGERIEKVE HSDLSFSKDW SFYLLYYTEF TPTEKDEYAC RVNHVTLSQP KIVKWDRDMV DHHHHHH
Host	Human cells
Species Reactivity	Human
Form/Format	Lyophilized from a 0.2 muM filtered solution of 20mM PB, 150mM NaCl, pH 7.2.
Purity/Purification	Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
Preparation and Storage	Lyophilized protein should be stored at -20 degree C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 2-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at -20 degree C for 3 months.
Molecular Weight	13,715 Da
3D Structure	ModBase 3D Structure for P61769
Endotoxin	Less than 0.1 ng/mug (1 IEU/mug) as determined by LAL test.
Directions for Use	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 mug/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Applications Tested/Suitable for B2M recombinant protein	ELISA (EIA),Western Blot (WB), SDS-PAGE, Mass Spectrometry (MS)
Related Product Information for B2M recombinant protein	Recombinant Human B2M Protein is produced by our Mammalian expression system and the target gene encoding Ile21-Met119 is expressed with a 6His tag at the C-terminus.
Other Notes	Small volumes of B2M 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 B2M purchase	MBS8248583 is a recombinant protein targeting B2M. Also known as Recombinant Human B2M Protein. Reactive in Human. Host: Human cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for B2M. It may not necessarily be applicable to this product.

NCBI GI #	4757826
NCBI GeneID	567
NCBI Accession #	NP_004039.1
UniProt Primary Accession #	P61769
UniProt Secondary Accession #	P01884; Q540F8; Q6IAT8; Q9UCK0; Q9UD48; Q9UDF4

UniProt Related Accession #	P61769
GenBank Nucleotide #	NM_004048.2
NCBI Official Full Name	beta-2-microglobulin
NCBI Official Synonym Full Names	beta-2-microglobulin
NCBI Official Symbol	B2M
NCBI Official Synonym Symbols	IMD43
UniProt Protein Name	Beta-2-microglobulin
Protein Family	Beta-2-microglobulin
UniProt Gene Name	B2M
UniProt Entry Name	B2MG_HUMAN
NCBI Protein Information	beta-2-microglobulin
NCBI Summary for B2M	This gene encodes a serum protein found in association with the major histocompatibility complex (MHC) class I heavy chain on the surface of nearly all nucleated cells. The protein has a predominantly beta-pleated sheet structure that can form amyloid fibrils in some pathological conditions. The encoded antimicrobial protein displays antibacterial activity in amniotic fluid. A mutation in this gene has been shown to result in hypercatabolic hypoproteinemia.[provided by RefSeq, Aug 2014]
UniProt Comments for B2M	B2M: Component of the class I major histocompatibility complex (MHC). Involved in the presentation of peptide antigens to the immune system. Heterodimer of an alpha chain and a beta chain. Beta-2- microglobulin is the beta-chain of major histocompatibility complex class I molecules. Polymers of beta 2-microglobulin can be found in tissues from patients on long-term hemodialysis. Belongs to the beta-2-microglobulin family. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 15q21.1 Cellular Component: cytoplasm; early endosome membrane; endoplasmic reticulum lumen; extracellular region; extracellular space; focal adhesion; Golgi apparatus; Golgi membrane; membrane; phagocytic vesicle membrane; plasma membrane Molecular Function: glycoprotein binding; identical protein binding; protein binding Biological Process: antibacterial humoral response; antigen processing and presentation of endogenous peptide antigen via MHC class I; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-independent; antigen processing and presentation of peptide antigen via MHC class I; cellular protein metabolic process; defense response to Gram-negative bacterium; defense response to Gram-positive bacterium; innate immune response; iron ion homeostasis; positive regulation of protein binding; positive regulation of receptor-mediated endocytosis; positive regulation of T cell cytokine production; regulation of defense response to virus by virus; regulation of immune response; retinal homeostasis Disease: Amyloidosis, Familial Visceral; Hypoproteinemia, Hypercatabolic
Research Articles on B2M	**1.** Results show that high serum 2-m levels and lymphoma associated hemophagocytic lymphohistiocytosis (LAHS) were associated with markedly poorer overall survival (OS) in patients with hemophagocytic lymphohistiocytosis suggesting that serum2-m concentration was a powerful and independent prognostic factor for OS in patients with LAHS.
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