Beta-2-Microglobulin (b2M) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Beta-2-Microglobulin (b2M), ELISA Kit
Full Product Name	Human Beta-2-Microglobulin (b2M) Mini Samples ELISA Kit
Product Gene Name	b2M elisa kit
Product Synonym Names	BMG; B2MG
Species Reactivity	Human
Assay Type	Double-antibody Sandwich ELISA for Antigen Detection
Samples	Serum, plasma, urine and other biological fluids
Detection Range	0.39-25ng/mL
Sensitivity	0.16ng/mL
Molecular Weight	13,715 Da
3D Structure	ModBase 3D Structure for P61769
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Product Categories/Family for b2M elisa kit	Infection immunity; Kidney biomarker
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Related Product Information for b2M elisa kit	MBS2087320 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Beta-2-Microglobulin (b2M) 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 b2M. The ELISA analytical biochemical technique of the MBS2087320 kit is based on b2M antibody-b2M antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect b2M antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, b2M. 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(%).
Other Notes	Small volumes of b2M 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.

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
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.** Serum levels of beta trace protein and beta 2 microglobulin can be used to predict residual kidney function in hemodialysis patients.
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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.

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