# B2M Antibody – Mouse Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | B2M, Monoclonal Antibody |
| **Full Product Name** | B2M Mouse mAb |
| **Product Gene Name** | anti-B2M antibody |
| **Product Synonym Names** | IMD43 |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1 |
| **Host** | Mouse |
| **Species Reactivity** | Human |
| **Form/Format** | PBS with 0.09% (W/V) Sodium Azide, pH 7.3. |
| **Purity/Purification** | Saturated Ammonium Sulfate (SAS) |
| **Preparation and Storage** | Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles. |
| **Molecular Weight** | 14kDa |
| **OMIM** | gene 241600 |
| **3D Structure** | ModBase 3D Structure for P61769 |
| **Immunogen** | This B2M antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 10-39 amino acids from human B2M. |
| **Cellular Localization** | Amyloid, MHC I, Secreted |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Applications Tested/Suitable for anti-B2M antibody** | Western Blot (WB) |
| **Application Notes for anti-B2M antibody** | WB: 1:1000 |
| **Related Product Information for anti-B2M antibody** | Component of the class I major histocompatibility complex (MHC). Involved in the presentation of peptide antigens to the immune system. |
| **Other Notes** | Small volumes of anti-B2M antibody 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** | MBS8558666 is an antibody targeting B2M. Also known as B2M Mouse mAb. Reactive in Human. Host: Mouse. |

## ADDITIONAL DETAILS

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

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| **NCBI GI #** | 48428791 |
| **NCBI GeneID** | 567 |
| **NCBI Accession #** | P61769.1 |

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| **UniProt Primary Accession #** | P61769 |
| **UniProt Related Accession #** | P61769 |
| **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.<br><br>Protein type: Secreted; Secreted, signal peptide<br><br>Chromosomal Location of Human Ortholog: 15q21.1<br><br>Cellular Component: Golgi membrane; Golgi apparatus; extracellular space; phagocytic vesicle membrane; focal adhesion; membrane; early endosome membrane; endoplasmic reticulum lumen; cytoplasm; plasma membrane; extracellular region; MHC class I protein complex; external side of plasma membrane<br><br>Molecular Function: identical protein binding; protein binding<br><br>Biological Process: response to drug; regulation of immune response; viral reproduction; positive regulation of T cell mediated cytotoxicity; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-independent; cytokine and chemokine mediated signaling pathway; T cell differentiation in the thymus; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; regulation of defense response to virus by virus; retinal homeostasis; iron ion homeostasis; antigen processing and presentation of peptide antigen via MHC class I; response to cadmium ion; response to molecule of bacterial origin; antigen processing and presentation of exogenous peptide antigen via MHC class I; innate immune response; protein refolding; antigen processing and presentation of exogenous protein antigen via MHC class Ib, TAP-dependent<br><br>Disease: Hypoproteinemia, Hypercatabolic |
| **Research Articles on B2M** | **1.** Immunoglobulin light-chain amyloidosis (AL amyloidosis) patients with a higher beta2-microglobulin (beta2MG) levels experienced significantly more thromboembolic events compared with those with a lower value. Most thromboembolic events occurred within the first year after the AL amyloidosis diagnosis. |
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