

Mouse anti-Human Beta-2 microglobulin Monoclonal Antibody | anti-B2M antibody

Anti-Beta-2 microglobulin Antibody, Mouse Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255495	Mouse	Human	Immunofluorescence, Immunocytochemistry, Flow Cytometry, Functional Assay, ELISA, Western Blot

PRODUCT SYNONYMS

Beta-2 microglobulin; Monoclonal Antibody; Anti-Beta-2 microglobulin Antibody; Mouse Monoclonal; Beta-2 microglobulin/B2M Antibody; Mouse MAb; beta-2 microglobulin; anti-B2M antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	35
Specificity	Human Beta-2 microglobulin/B2M
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-B2M antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), FCM/FACS (Flow Cytometry), ELISA, WB (Western Blot)
Immunogen	Recombinant Human Beta-2 microglobulin/B2M Protein
Conjugation	Unconjugated
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human Beta-2 microglobulin/B2M (rh Beta-2 microglobulin/B2M). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



FCM/FACS (Flow Cytometry)

Flow cytometric analysis of Human B2M / Beta-2-microglobulin expression on human whole blood lymphocytes. Cells were stained with purified anti-Human B2M / Beta-2-microglobulin, then a PE-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes.



IF (Immunofluorescence)

Immunofluorescence staining of B2M in Hela cells. Cells were fixed with 4% PFA, permeabilized with 0.1% Triton X-100 in PBS, blocked with 10% serum, and incubated with mouse anti-human B2M monoclonal antibody (dilution ratio 1:60) at 4 degree C overnight. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-mouse IgG secondary antibody (green). Positive staining was localized to Cytoplasm.



WB (Western Blot)

Anti-B2M mouse monoclonal antibody at 1:500 dilution
Lane A: A-431 Whole Cell Lysate
Lane B: U-937 Whole Cell Lysate
Lane C: Raji Whole Cell Lysate
Lane D: HeLa Whole Cell Lysate
Lysates/proteins at 30 ug per lane.
Secondary Goat Anti-Mouse IgG (H+L)/HRP at 1/10000 dilution.
Developed using the ECL technique.
Performed under reducing conditions.
Predicted band size: 13 kDa
Observed band size: 13 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-B2M antibody	B2M, also known as beta2-Microglobulin or CDABP0092, is a component of MHC class I molecules found expression in all nucleated cells (excludes red blood cells). The major function of MHC class I molecules is to display fragments of proteins from within the cell to T-cells and cells containing foreign proteins will be attacked. B2M (beta2-Microglobulin) is a low molecular weight protein. It was demonstrated that B2M (beta2-Microglobulin) was localized in the membranes of nucleated cells and was found to be associated with HL-A antigens. B2M (beta2-Microglobulin) is present in free form in various body fluids and as a subunit of histocompatibility antigens on cell surfaces lateral to the alpha3 chain. Unlike alpha3, beta2 has no transmembrane region. Directly above beta2 lies the alpha1 chain, which itself is lateral to the alpha2. In the absence of B2M (beta2 microglobulin), very limited amounts of MHC class I (classical and non-classical) molecules can be detected on the surface. In the absence of MHC class I, CD8 T cells, a subset of T cells involved in the development of acquired immunity cannot develop. Low levels of B2M (beta2 microglobulin) can indicate non-progression of HIV.
References	Poulik MD, et al. (1979) Beta 2-Microglobulin: methods and clinical applications. CRC Crit Rev Clin Lab Sci. 10(3): 225-45. Poulik MD, et al. (1975) Beta2-Microglobulins. Contemp Top Mol Immunol. 4: 157-204. Berggard I. (1976) Beta2-Microglobulins: isolation, properties, and distribution. Fed Proc. 35(5): 1167-70.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4757826
NCBI GeneID	567
NCBI Accession #	NP_004039.1
NCBI GenBank Nucleotide #	NM_004048.2
UniProt Accession #	P61769; P01884; Q540F8; Q6IAT8; Q9UCK0; Q9UD48; Q9UDF4
NCBI Official Full Name	beta-2-microglobulin
NCBI Official Synonym Full Names	beta-2-microglobulin
NCBI Official Symbol	B2M
NCBI Protein Information	beta-2-microglobulin; beta chain of MHC class I molecules; beta-2-microglobin
UniProt Protein Name	Beta-2-microglobulin
UniProt Gene Name	B2M
UniProt Entry Name	B2MG_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.