

Datasheet for ABIN93903
anti-beta-2 Microglobulin antibody



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Overview

Quantity:	0.1 mg
Target:	beta-2 Microglobulin (B2M)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This beta-2 Microglobulin antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), ELISA, Immunoprecipitation (IP), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Radioimmunoassay (RIA)

Product Details

Immunogen:	Purified human beta2-microglobulin
Clone:	B2M-01
Isotype:	IgG2a
Specificity:	The mouse monoclonal antibody B2M-01 reacts with beta2-microglobulin (beta2M, extracellular antigen), associated with cell-surface MHC Class I molecules and other membrane antigens, as well as it reacts with soluble beta2-microglobulin. Beta2M is a 12 kDa Ig like glycoprotein expressed on lymphocytes, thymocytes, monocytes, granulocytes, platelets, endothelial cells and epithelial cells. It is absent on erythrocytes.
No Cross-Reactivity:	Chicken, Cow, Dog, Mouse, Rabbit
Cross-Reactivity (Details):	Human

Product Details

Purification: Purified by protein-A affinity chromatography.

Purity: > 95 % (by SDS-PAGE)

Target Details

Target: beta-2 Microglobulin (B2M)

Alternative Name: beta2-Microglobulin ([B2M Products](#))

Background: Beta-2-microglobulin, Beta2-microglobulin non-covalently associates with the 44 kDa alpha chain to form the HLA Class I antigen complex. Human beta2-microglobulin associated with HLA Class I antigens is expressed on many types of cells including lymphocytes, thymocytes, monocytes, granulocytes, platelets, endothelial cells, and epithelial cells. It is absent on erythrocytes., B2M

Gene ID: 567

UniProt: [P61769](#)

Pathways: [TCR Signaling](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#)

Application Details

Application Notes: Western blotting: Recommended dilution: 2-4 µg/mL, positive control: U937 human histiocytic lymphoma cell line, RAJI human Burkitt lymphoma cell line, negative control: EL4 mouse lymphoblastic lymphoma cell line, both reducing and non-reducing conditions.
Immunohistochemistry (paraffin sections): Recommended dilution: 10 µg/mL, positive tissue: kidney glomeruli.
Flow cytometry: Recommended dilution: 0.5-4 µg/mL, positive control: peripheral blood lymphocytes, negative control: DAUDI human Burkitt lymphoma cell line, erythrocytes.
ELISA: Working dilution should be determined by investigator.
RIA: Use at an assay dependent concentration. The dissociation constant of the antibody soluble beta2-microglobulin is 1.5×10^{-8} mol/l as determined by competitive RIA.
Immunoprecipitation: The antibody B2M-01 coprecipitates beta2-microglobulin (12 kDa) and HLA antigens (45 kDa) from the lysates of human lymphoid cells.

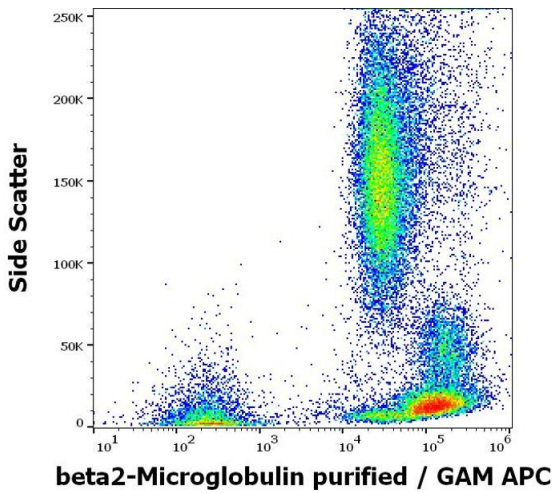
Restrictions: For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

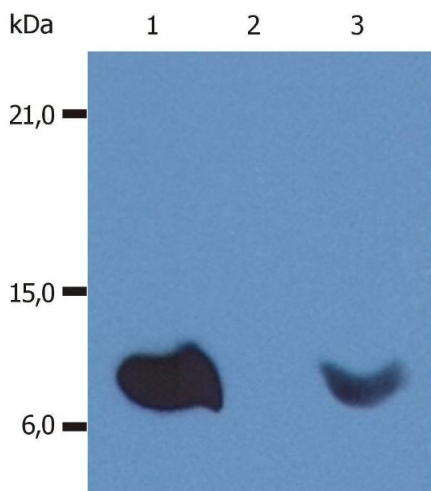
Publications

- Product cited in:
- Poláková, Železníková, Russ: "HLA-G5 in the blood of leukemia patients and healthy individuals." in: **Leukemia research**, Vol. 37, Issue 2, pp. 139-45, (2013) ([PubMed](#)).
- Khurana, Traum, Aivado, Wells, Guerrero, Grall, Libermann, Schachter: "Urine proteomic profiling of pediatric nephrotic syndrome." in: **Pediatric nephrology (Berlin, Germany)**, Vol. 21, Issue 9, pp. 1257-65, (2006) ([PubMed](#)).
- Lafon, Prehaud, Megret, Lafage, Mouillot, Roa, Moreau, Rouas-Freiss, Carosella: "Modulation of HLA-G expression in human neural cells after neurotropic viral infections." in: **Journal of virology**, Vol. 79, Issue 24, pp. 15226-37, (2005) ([PubMed](#)).
- Hilgert, Horejsí, Kristofová: "The use of murine monoclonal antibody B2M-01 for detection and purification of human beta 2-microglobulin." in: **Folia biologica**, Vol. 30, Issue 6, pp. 369-76, (1985) ([PubMed](#)).



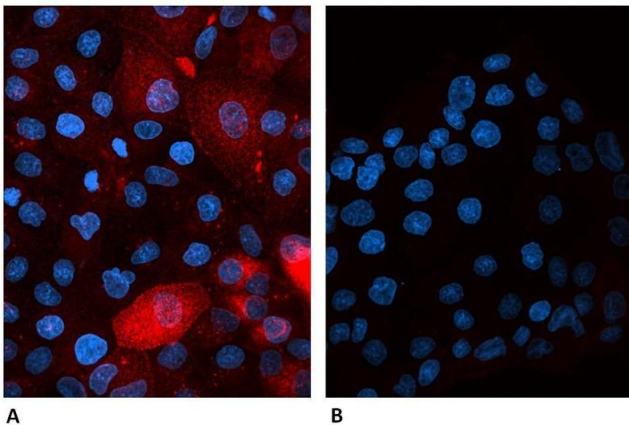
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral blood stained using anti-human beta2-Microglobulin (B2M-01) purified antibody (concentration in sample 0.3 µg/mL, GAM APC).



Western Blotting

Image 2. Western Blotting analysis (non-reducing conditions) of whole cell lysate of various cell lines using anti-human β2-microglobulin (B2M-01). Lane 1: RAJI human Burkitt lymphoma cell line Lane 2: EL4 mouse lymphoblastic lymphoma cell line Lane 3: U937 human histiocytic lymphoma cell line



Immunofluorescence

Image 3. Confocal microscopy of human β2-microglobulin-transfected canine cells labeled A) with B2M-01 antibody Alexa Fluor® 647 conjugate and B) with Alexa Fluor® 647 conjugated Mouse IgG2a Isotype Control (A6-458-C100). Cells were fixed with 4% PFA and permeabilized with 0.1% PBS-Tween20 containing 2% BSA. Antibody concentration 2µg/ml.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN93903.