

# Mouse β<sub>2</sub>-Microglobulin Antibody

Monoclonal Rat IgG<sub>2A</sub> Clone # 893803 Catalog Number: MAB8325

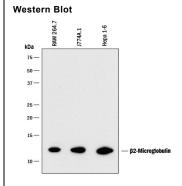
DESCRIPTION			
Species Reactivity	Mouse		
Specificity	Detects mouse β <sub>2</sub> -Microglobulin in direct ELISAs and Western blots.		
Source	Monoclonal Rat IgG <sub>2A</sub> Clone # 893803		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse $eta_2$ -Microglobulin Met1-Met119 Accession # P01887		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

#### APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 μg/mL	See Below

#### DATA



Detection of Mouse  $\boldsymbol{\beta}_2\text{-Microglobulin}$  by Western Blot. Western blot shows lysates of RAW 264.7 mouse monocyte/macrophage cell line, J774A.1 mouse reticulum cell sarcoma macrophage cell line, and Hepa 1-6 mouse hepatoma cell line. PVDF membrane was probed with 0.5 µg/mL of Rat Anti-Mouse β<sub>2</sub>-Microglobulin Monoclonal Antibody (Catalog # MAB8325) followed by HRPconjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for β<sub>2</sub>-Microglobulin at approximately 13 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.	
	*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	

## Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

#### BACKGROUND

Beta 2-Microglobulin (b2M) is a 12 kDa secreted polypeptide that serves as the light chain of Class I MHC molecules. Possessing an Ig-like domain, b2M noncovalently associates with both 44 kDa classical (HLA-A, -B, -C) and 40 kDa non-classical (HLA-E, -F, -G) Class I MHC heavy chains as well as with 43-49 kDa Class I non-MHC heavy chains (CD1). b2M is expressed on nearly all nucleated cells, with neurons being a notable exception. Circulating b2M is generated during normal HLA turnover. It can also dissociate from the MHC complex and circulate as full length and N-terminal truncated peptides of 93, 91, and 90 amino acids. It has been measured in a variety of body fluids, including serum, plasma, saliva, CSF, and urine. b2M freely passes through the glomerular membrane, but it is 99% actively reabsorbed and degraded in the proximal tubule cells. Circulating b2M levels are elevated in rheumatoid arthritis, systemic lupus erythematosus, viral infections, and conditions with decreased glomerular filtration. Human b2M shares 70% and 75% amino acid sequence identity with mouse and rat b2M, respectively.

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