

Human β_2 -Microglobulin Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG₁ Clone # 883005

Catalog Number: FAB82481R
100 μ g

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human β_2 -Microglobulin in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 883005
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human β_2 -Microglobulin Met1-Met119 Accession # P61769
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	0.25-1 μ g/10 ⁶ cells	Human PBMC lymphocytes

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

β_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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