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Beta-2 Microglobulin (Renal Failure & Tumor Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone C21.48A1]
Catalog # AH12135

Product Information

Application	IF, FC
Primary Accession	P61769
Other Accession	567, 534255
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	C21.48A1
Calculated MW	13715

Additional Information

Gene ID	567
Other Names	Beta-2-microglobulin, Beta-2-microglobulin form pI 5.3, B2M
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Beta-2 Microglobulin (Renal Failure & Tumor Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	B2M (HGNC:914)
Function	Component of the class I major histocompatibility complex (MHC). Involved in the presentation of peptide antigens to the immune system. Exogenously applied M.tuberculosis EsxA or EsxA-EsxB (or EsxA expressed in host) binds B2M and decreases its export to the cell surface (total protein levels do not change), probably leading to defects in class I antigen presentation (PubMed:25356553).
Cellular Location	Secreted. Cell surface. Note=Detected in serum and urine (PubMed:1336137, PubMed:7554280). {ECO:0000269|PubMed:7554280, ECO:0000269|Ref.6}

Background

The antibody recognizes the hidden determinant of β-2 microglobulin (i.e. binding to its determinant is available only when the chain is separated from the HLA heavy chain. β-2 microglobulin is a 12KDa protein with a pI of 5.6. Serum β2 microglobulin levels are a reflection of cell turnover. Levels rise with fever, inflammation, and infection. Increased serum levels are also seen in B-cell malignancies and in renal failure and may indicate a worse prognosis for patients with early-stage Hodgkin's lymphoma. In urine, increased levels are seen in proximal renal tubular disease as well as renal transplant rejection. β2 microglobulin levels can rise either because its rate of synthesis has increased (e.g. in AIDS, malignant monoclonal plasma cell dyscrasia, solid tumours and autoimmune disease) or because of impaired renal filtration (e.g. due to renal insufficiency, graft rejection or nephrotoxicity induced by post-transplantation immunosuppressive therapy).

References

Liabeuf A, le Borgne de Kaouel C, Kourilsky FM, Malissen B, Manuel Y, Sanderson AR. An antigenic determinant of human beta 2-microglobulin masked by the association with HLA heavy chains at the cell surface: analysis using monoclonal antibodies. J Immunol. 1981 Oct;127(4):1542-8

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.