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B2M Antibody

Catalog # ASC11683

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P61769
Other Accession	NP_004039, 4757826
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	13715
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	B2M antibody can be used for detection of B2M by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	567
Other Names	Beta-2-microglobulin, Beta-2-microglobulin form pI 5.3, B2M
Target/Specificity	B2M; B2M antibody is human reactive.
Reconstitution & Storage	B2M antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	B2M Antibody 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}

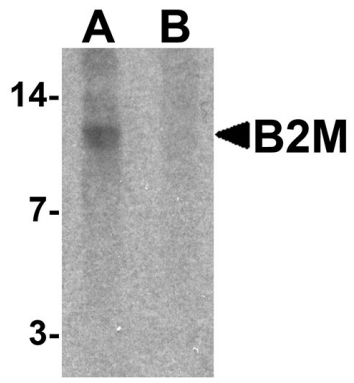
Background

B2M Antibody: Beta2-microglobulin (B2M) is a principal component of the Major Histocompatibility Complex (MHC) class I molecule, a ternary membrane protein complex that displays fragments derived from proteolyzed cytosolic proteins on the surface of cells for recognition by the surveillance immune system (1,2). B2M is involved in the presentation of peptide antigens to the immune system and plays a critically important role in immune system function (3). It is expressed on nearly all nucleated cells and contains one Ig-like C1-type (immunoglobulin-like) domain (2,3). Mutations in the Beta 2-microglobulin gene can enhance the progression of malignant melanoma and osteoarthropathy (4,5).

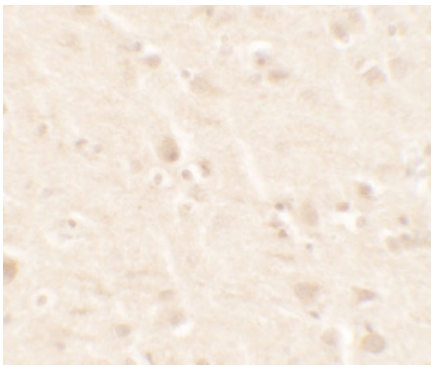
References

Krangel MS, Orr HT, and Strominger JL. Assembly and maturation of HLA-A and HLA-B antigens in vivo. Cell 1979; 18:979-91.
Skjodt K, Welinder KG, Crone M, et al. Isolation and characterization of chicken and turkey beta 2-microglobulin. Mol. Immunol. 1986; 23:1301-9.
Ohashi K. Pathogenesis of beta2-microglobulin amyloidosis. Pathol. Int. 2001; 51:1-10.
Blum C, Graham A, Yousefzadeh M, et al. The expression ratio of Map7/B2M is prognostic for survival in patients with stage II colon cancer. Int. J. Oncol. 2008; 33:579-84.

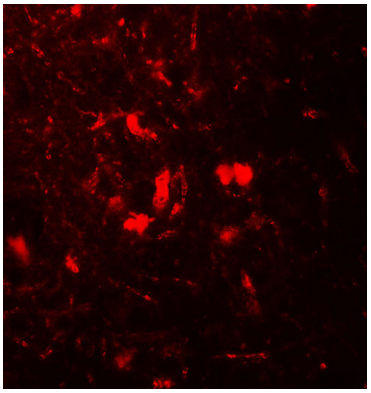
Images



Western blot analysis of B2M in SK-N-SH cell lysate with B2M antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of B2M in mouse brain tissue with B2M antibody 5 µg/mL.



Immunofluorescence of B2M in mouse brain tissue with B2M antibody at 20 µg/mL.

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