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# B2M Antibody
**Catalog # ASC11683**

## Specification

### B2M Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC, IF** |
| Primary Accession | P61769 |
| Other Accession | NP_004039, 4757826 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Calculated MW | **Predicted: 13 kDa**<br>**Observed: 12 kDa KDa** |
| Application Notes | **B2M antibody can be used for detection of B2M by Western blot at 1 - 2 µg/mL.** |

### B2M Antibody - Additional Information

| | |
|---|---|
| Gene ID | **567** |

**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.

### B2M Antibody - 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:<a href="http://www.uniprot.org/citations/25356553" target="_blank">25356553</a>).

**Cellular Location**
Secreted. Cell surface. Note=Detected in serum and urine (PubMed:1336137, PubMed:7554280). {ECO:0000269|PubMed:7554280, ECO:0000269|Ref.6}

### B2M Antibody - Protocols

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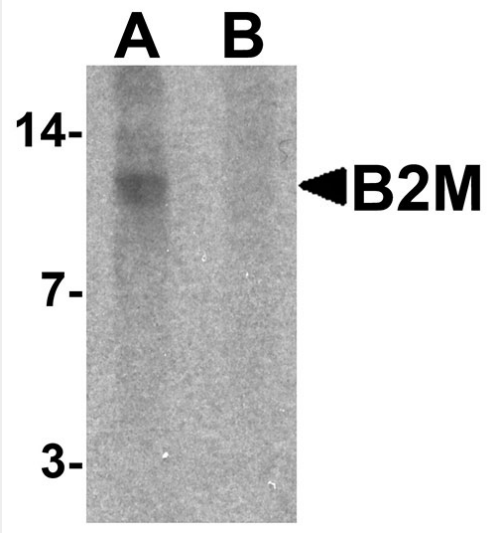
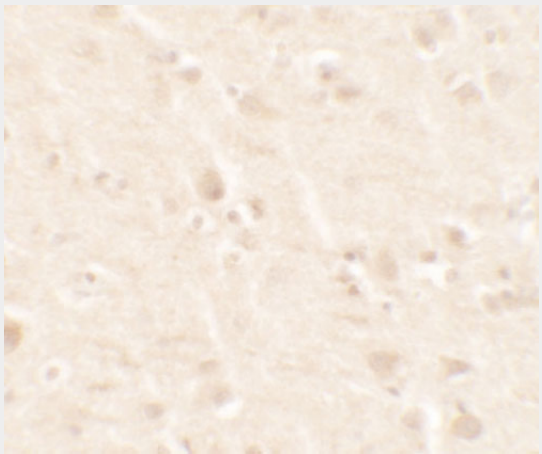
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**B2M Antibody - 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.

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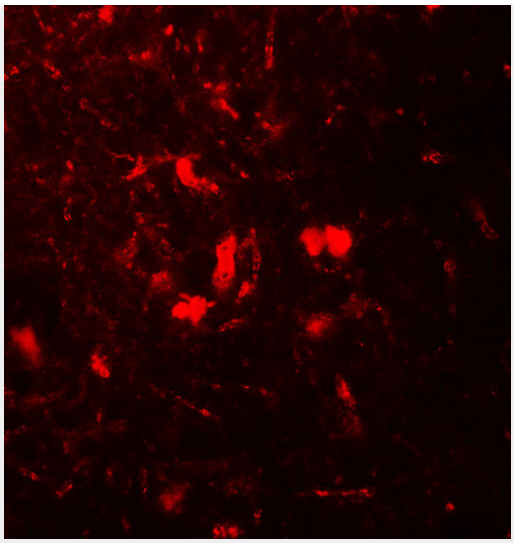

Immunofluorescence of B2M in mouse brain tissue with B2M antibody at 20 µg/mL.

**B2M Antibody - 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).

**B2M Antibody - 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.