

**Beta-2 Microglobulin (Renal Failure & Tumor Marker) Antibody - With BSA and Azide  
Mouse Monoclonal Antibody [Clone B2M/961 ]  
Catalog # AH12138**

**Specification**

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

Application	,2,3,4,
Primary Accession	<a href="#">P61769</a>
Other Accession	<a href="#">567</a> , <a href="#">534255</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Calculated MW	12kDa KDa

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

Gene ID 567

**Other Names**

Beta-2-microglobulin, Beta-2-microglobulin form pI 5.3, B2M

**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.

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

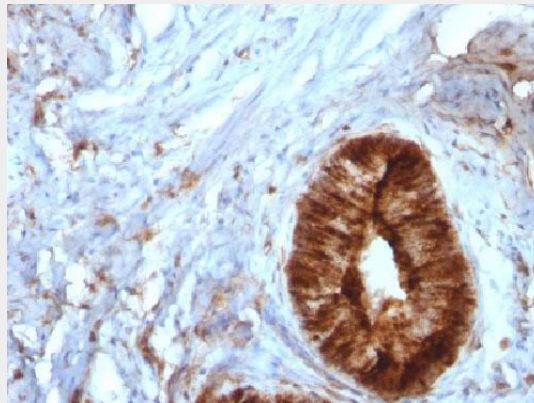
Secreted. Cell surface. Note=Detected in serum and urine (PubMed:1336137, PubMed:7554280). {ECO:0000269|PubMed:7554280, ECO:0000269|Ref.6}

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

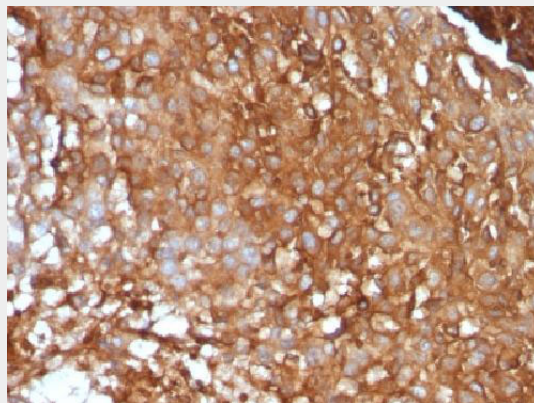
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

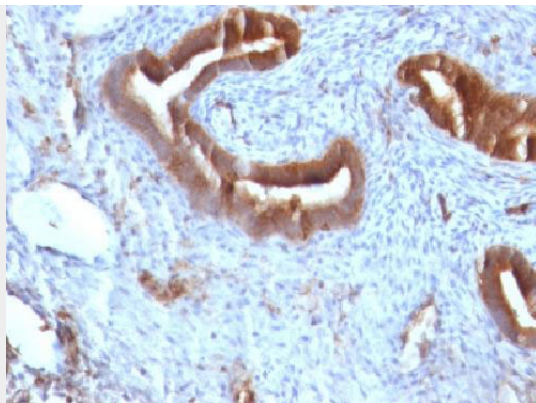
## **Beta-2 Microglobulin (Renal Failure & Tumor Marker) Antibody - With BSA and Azide - Images**



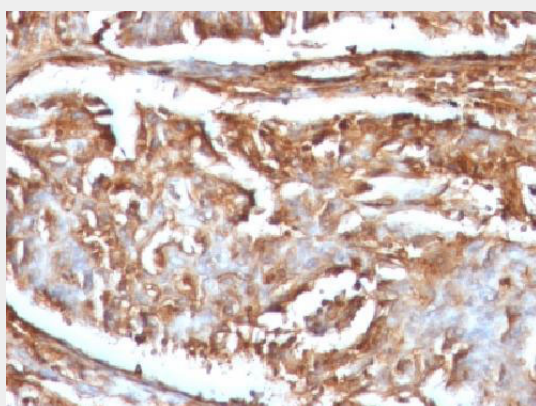
Formalin-fixed, paraffin-embedded human Cervical Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961).



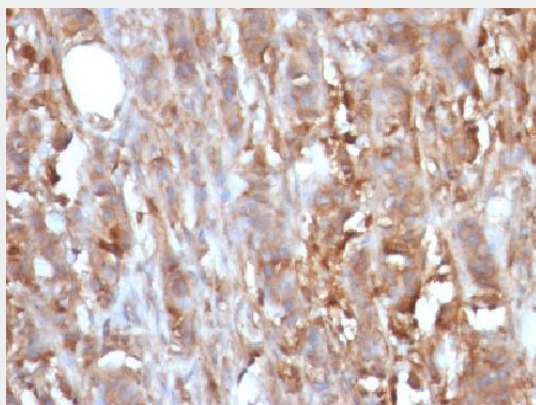
Formalin-fixed, paraffin-embedded human Melanoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961).



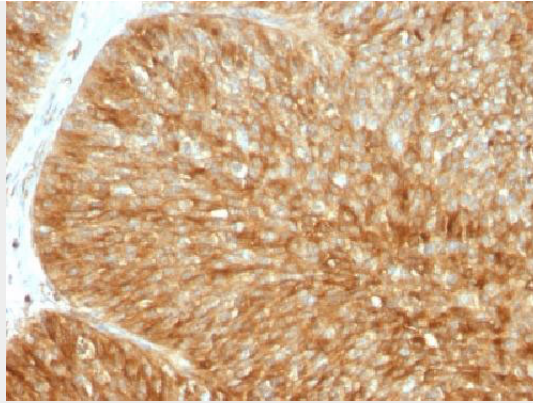
Formalin-fixed, paraffin-embedded human Endometrial Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)



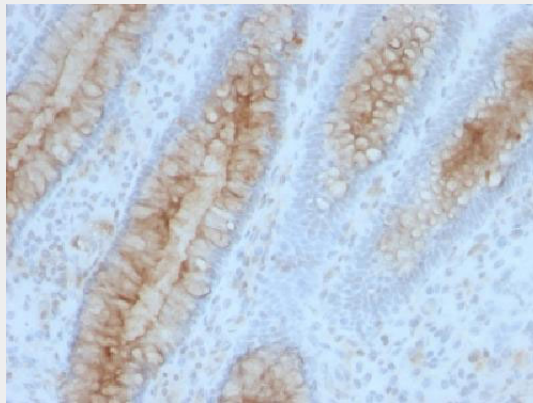
Formalin-fixed, paraffin-embedded human Renal Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)



Formalin-fixed, paraffin-embedded human Cervical Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)



Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)



Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)

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

Recognizes a protein of 12kDa, identified as  $\beta$ -2 microglobulin. Major histocompatibility complex (MHC) class 1 molecules bind to antigens for presentation on the surface of cells. The proteasome is responsible for producing these antigens from the components of foreign pathogens. MHC class 1 molecules consist of an  $\alpha$  heavy chain that contains three subdomains ( $\alpha$ 1,  $\alpha$ 2,  $\alpha$ 3) and a non-covalent associating light chain, known as  $\beta$ -2-Microglobulin.  $\beta$ -2-Microglobulin associates with the  $\alpha$ 3 subdomain of the  $\alpha$  heavy chain and forms an immunoglobulin domain-like structure that mediates proper folding and expression of MHC class 1 molecules. The  $\alpha$ 1 and  $\alpha$ 2 domains of the  $\alpha$  heavy chain form the peptide antigen-binding cleft. Mutations in the  $\beta$ -2-Microglobulin gene can enhance the progression of malignant melanoma phenotypes.

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

Josson, S., et al. 2011.  $\beta$ 2-Microglobulin induces epithelial to mesenchymal transition and confers cancer lethality and bone metastasis in human cancer cells. *Cancer Res.* 71: 2600-2610. |