

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

Mouse Monoclonal Antibody [Clone B2M/961]

Catalog # AH12138

Product Information

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|-------------------|--|
| Application | IHC, IF, FC |
| Primary Accession | P61769 |
| Other Accession | 567 , 534255 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | Mouse / IgG2b, kappa |
| Clone Names | B2M/961 |
| Calculated MW | 13715 |

Additional Information

| | |
|------------------|---|
| Gene ID | 567 |
| Other Names | Beta-2-microglobulin, Beta-2-microglobulin form pI 5.3, B2M |
| Application Note | IHC~~1:100~500 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} |

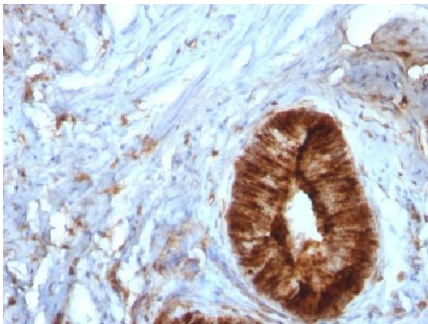
Background

Recognizes a protein of 12kDa, identified as β -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 α heavy chain that contains three subdomains (α 1, α 2, α 3) and a non-covalent associating light chain, known as β -2-Microglobulin. β -2-Microglobulin associates with the α 3 subdomain of the α heavy chain and forms an immunoglobulin domain-like structure that mediates proper folding and expression of MHC class 1 molecules. The α 1 and α 2 domains of the α heavy chain form the peptide antigen-binding cleft. Mutations in the β -2-Microglobulin gene can enhance the progression of malignant melanoma phenotypes.

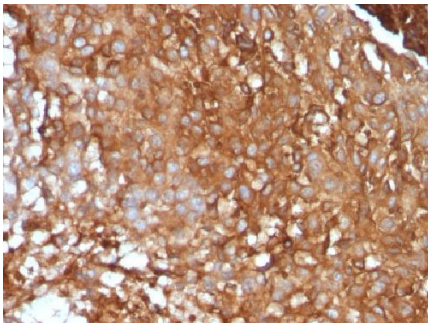
References

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

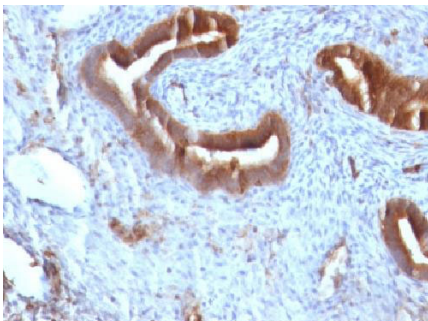
Images



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

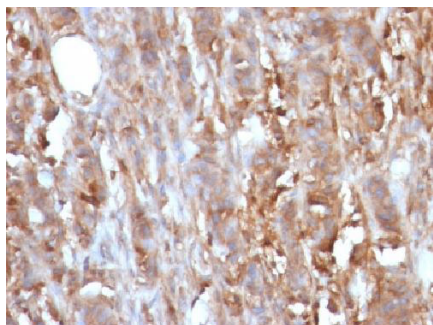
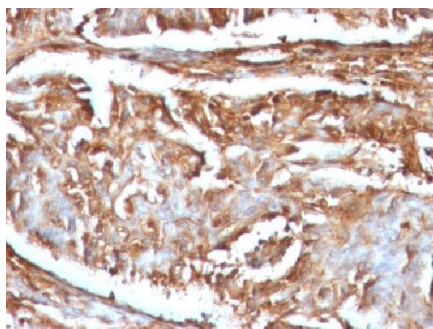


Formalin-fixed, paraffin-embedded human Melanoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961).

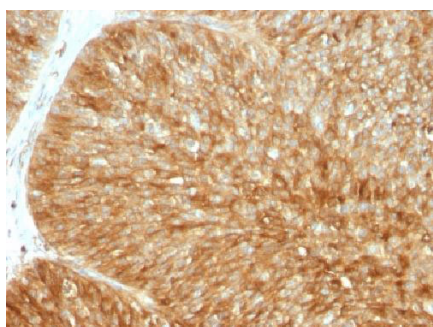


Formalin-fixed, paraffin-embedded human Endometrial Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)

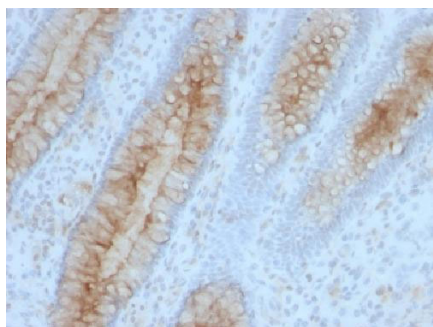
Formalin-fixed, paraffin-embedded human Renal Carcinoma stained with Beta-2-Microglobulin Monoclonal Antibody (B2M/961)



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)

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