

## Product Datasheet

# Recombinant Beta-2 Microglobulin Antibody (orb606368)

<b>Catalog Number</b>	orb606368
<b>Category</b>	Antibodies
<b>Description</b>	<p>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 (alpha1, alpha2, alpha3) and a non-covalent associating light chain, known as beta-2-Microglobulin. Beta-2-Microglobulin associates with the alpha3 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 alpha1 and alpha2 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.</p>
<b>Clonality</b>	Recombinant
<b>Species/Host</b>	Mouse
<b>Isotype</b>	Mouse IgG2b, kappa
<b>Conjugation</b>	Unconjugated
<b>Reactivity</b>	Human
<b>Buffer/Preservatives</b>	0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin and 0.05% sodium azide
<b>Purification</b>	Protein G affinity chromatography
<b>Immunogen</b>	Full length recombinant human protein was used as the immunogen for the recombinant Beta-2 Microglobulin antibody.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

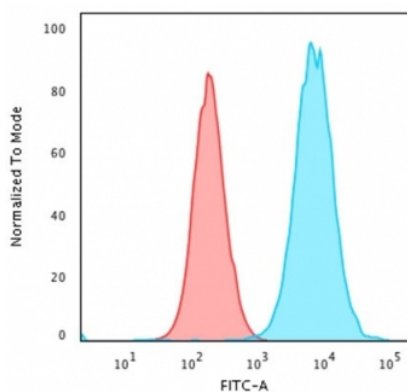
**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

<b>UniProt ID</b>	<b>P61769</b>
<b>Tested applications</b>	FACS, IF, IHC-P, WB
<b>Dilution range</b>	Flow cytometry: 1-2ug/million cells, Immunofluorescence: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT, Western blot: 1-2ug/ml
<b>Application notes</b>	Optimal dilution of the recombinant Beta-2 Microglobulin antibody should be determined by the researcher.1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.
<b>Antibody Type</b>	Primary Antibody
<b>Clone Number</b>	rB2M/961
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Note</b>	For research use only
<b>Expiration Date</b>	12 months from date of receipt.



Flow cytometry testing of PFA-fixed human HeLa cells with recombinant Beta-2 Microglobulin antibody (clone rB2M/961); Red = isotype control, Blue = recombinant Beta-2 Microglobulin antibody.

**Biorbyt Ltd.**

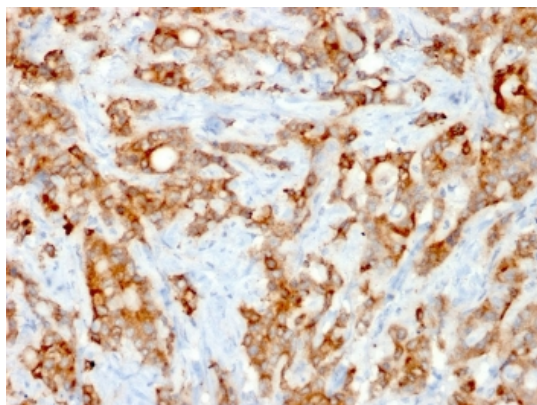
7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

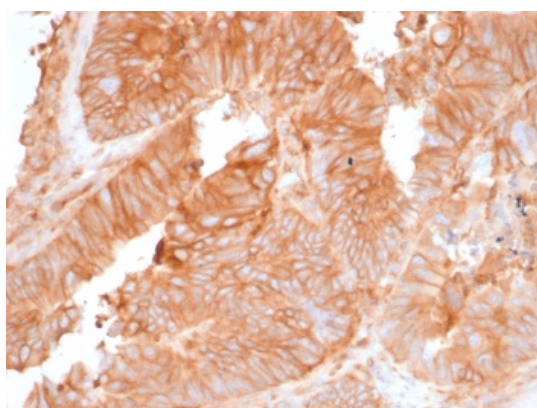
**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

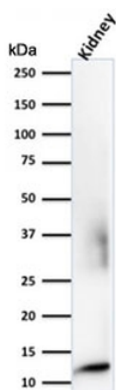
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558



IHC testing of FFPE human lung carcinoma stained with recombinant Beta-2-Microglobulin antibody (rB2M/961). Required HEIR: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



IHC testing of FFPE human colon carcinoma stained with recombinant Beta-2-Microglobulin antibody (rB2M/961). Required HEIR: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



Western blot testing of human kidney lysate with recombinant Beta-2 Microglobulin antibody (clone rB2M/961). Expected molecular weight: 12-14 kDa.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

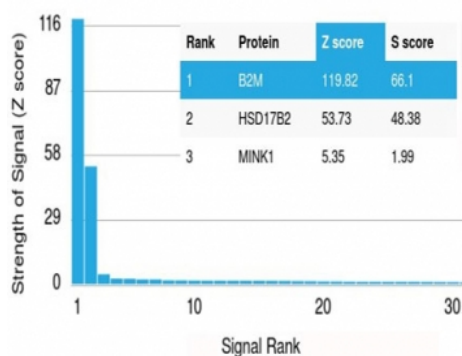
**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

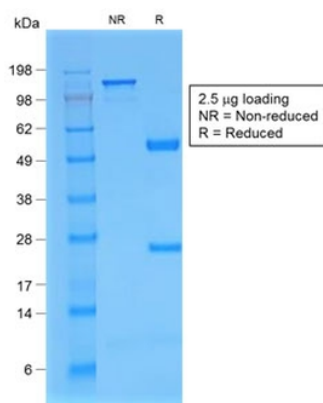
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

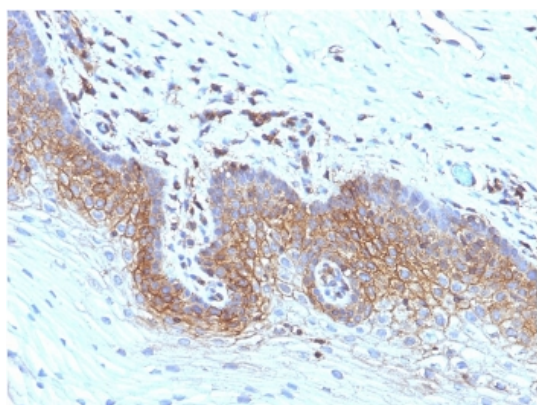
### Human Protein Microarray Specificity Validation



Analysis of HuProt (TM) microarray containing more than 19,000 full-length human proteins using recombinant Beta-2 Microglobulin antibody (clone rB2M/961). These results demonstrate the foremost specificity of the rB2M/961 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free recombinant Beta-2 Microglobulin antibody (clone rB2M/961) as confirmation of integrity and purity.



IHC testing of FFPE human cervical carcinoma stained with recombinant Beta-2-Microglobulin antibody (rB2M/961). Required HEIR: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.

#### Biorbyt Ltd.

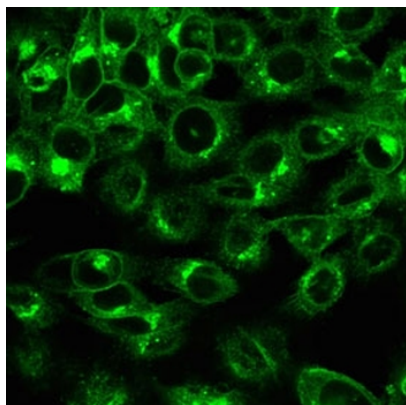
7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

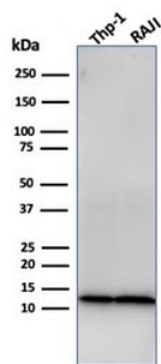
#### Biorbyt LLC

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558



Immunofluorescent staining of permeabilized human HeLa cells with recombinant Beta-2 Microglobulin antibody (clone rB2M/961).



Western blot testing of human THP-1 and Raji cell lysate with recombinant Beta-2 Microglobulin antibody. Expected molecular weight: 12-14 kDa.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)