Datasheet for ABIN6940416

**Recombinant anti-beta-2 Microglobulin antibody**

### Overview

<table>
<thead>
<tr>
<th>Quantity:</th>
<th>100 μg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target:</td>
<td>beta-2 Microglobulin (B2M)</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>Human, Non-Human Primate</td>
</tr>
<tr>
<td>Host:</td>
<td>Mouse</td>
</tr>
<tr>
<td>Antibody Type:</td>
<td>Recombinant Antibody</td>
</tr>
<tr>
<td>Clonality:</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Conjugate:</td>
<td>This beta-2 Microglobulin antibody is un-conjugated</td>
</tr>
<tr>
<td>Application:</td>
<td>Flow Cytometry (FACS), Immunofluorescence (IF), Immunohistochemistry (IHC), Staining Methods (StM)</td>
</tr>
</tbody>
</table>

### Product Details

<table>
<thead>
<tr>
<th>Immunogen:</th>
<th>Recombinant human full-length B2M protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clone:</td>
<td>RB2M-961</td>
</tr>
<tr>
<td>Isotype:</td>
<td>IgG2b kappa</td>
</tr>
<tr>
<td>Specificity:</td>
<td>Recognizes a protein of 12 kDa, 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</td>
</tr>
</tbody>
</table>
Product Details

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.

Purification:
Purified by Protein A/G

Target Details

Target:
beta-2 Microglobulin (B2M)

Alternative Name:
B2M (B2M Products)

Molecular Weight:
12kDa

Gene ID:
567

UniProt:
P61769

Pathways:
TCR Signaling, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Application Notes:
Positive Control: HL-60 or HeLa cells. Melanomas and Lymphoma. Carcinoma of Stomach, Cervix, Endometrial, Kidney or Colon.

Known Application: Flow Cytometry (0.5-1 μg/million cells), Immunofluorescence (0.5-1 μg/mL), Immunohistochemistry (Formalin-fixed) (0.5-1 μg/mL for 30 minutes at RT) (Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes) Optimal dilution for a specific application should be determined.

Restrictions:
For Research Use only

Handling

Concentration:
200 μg/mL

Buffer:
10 mM PBS with 0.05 % BSA & 0.05 % azide.

Preservative:
Sodium azide

Precaution of Use:
This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage:
4 °C,-80 °C
Handling

Storage Comment: Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Expiry Date: 24 months

Validation report #029657 for Immunohistochemistry (IHC)

Immunofluorescence

Image 1. Immunofluorescence Analysis of HeLa cells labeling with Beta-2-Microglobulin Mouse Recombinant Monoclonal Antibody (rB2M/961) followed by Goat anti-mouse IgG-CF488 (Green).

Protein Array

Image 2. Analysis of Protein Array containing more than 19,000 full-length human proteins using Beta-2 Microglobulin Mouse Recombinant Monoclonal Antibody (rB2M/961). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to
Flow Cytometry

Image 3. Flow Cytometric Analysis of PFA-fixed HeLa cells using Beta-2-Microglobulin Mouse Recombinant MAb (rB2M/961) followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red)

Please check the product details page for more images. Overall 9 images are available for ABIN6940416.