

**Datasheet for 200-401-141-0100****Beta-2-Microglobulin Antibody****Overview**

|                      |                                                                              |
|----------------------|------------------------------------------------------------------------------|
| <b>Description:</b>  | Anti-Beta-2-Microglobulin (Human Urine) (RABBIT) Antibody - 200-401-141-0100 |
| <b>Item No.:</b>     | 200-401-141-0100                                                             |
| <b>Size:</b>         | 100 µg                                                                       |
| <b>Applications:</b> | IF, IHC, WB                                                                  |
| <b>Reactivity:</b>   | Human                                                                        |
| <b>Host Species:</b> | Rabbit                                                                       |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Anti-beta-2-Microglobulin Antibody detects beta-2-Microglobulin. Beta-2-microglobulin is a component of the class I major histocompatibility complex (MHC), which are present on all nucleated cells (excludes red blood cells). It is involved in the presentation of peptide antigens to the immune system. Beta-2-microglobulin associates not only with the alpha chain of MHC class I molecules, but also with class I-like molecules such as CD1 and Qa. Defects in B2M are the cause of hypercatabolic hypoproteinemia. Anti-beta-2-Microglobulin Antibody is ideal for investigators involved in Cell Signaling, Immunology and Cell Biology research. |
| <b>Synonyms:</b>     | rabbit anti-Beta-2-Microglobulin Antibody, b2-Microglobulin, B2M antibody, B2MG_HUMAN antibody, Beta 2 microglobin antibody, Beta 2 microglobulin precursor antibody, Beta chain of mhc class 1 proteins antibody, Hdcma22p antibody, CDABP0092 antibody, IMD43 antibody                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

**Target Details**

|                        |                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name:</b>      | B2M                                                                                                                                    |
| <b>Reactivity:</b>     | Human                                                                                                                                  |
| <b>Immunogen Type:</b> | Native Protein                                                                                                                         |
| <b>Immunogen:</b>      | Anti-Beta-2-Microglobulin Antibody was produced by repeated immunizations with human beta-2-Microglobulin protein isolated from urine. |

**Purity/Specificity:** Anti-beta-2-Microglobulin antibody is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase and anti-Rabbit Serum, as well as purified and partially purified b2-Microglobulin (Human Urine). Cross reactivity against b2-Microglobulin from other sources is unknown.

**Relevant Links:**

- [UniProtKB - P61769](#)
- [NCBI - NP\\_004039.1](#)
- [NCBI - P61769.1](#)
- [GeneID - 567](#)

## Application Details

**Tested Applications:** IF, IHC, WB

**Application Note:** Anti-beta-2-Microglobulin antibody has been tested in western blot, immunohistochemistry, and immunofluorescence. This product detects a single band of the expected apparent molecular weight (~13.7kDa), and is suitable for use in ELISA. Researchers should determine optimal titers for applications that are not stated below.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

**ELISA:** 1:2,000 - 1:10,000

**IF:** 1:200

**IHC:** 1:500 - 1:2,000

**WB:** 1:200 - 1:500

## Formulation

**Physical State:** Lyophilized

**Concentration:** 1.0 mg/ml by UV absorbance at 280 nm

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Preservative:** 0.01% (w/v) Sodium Azide

**Stabilizer:** None

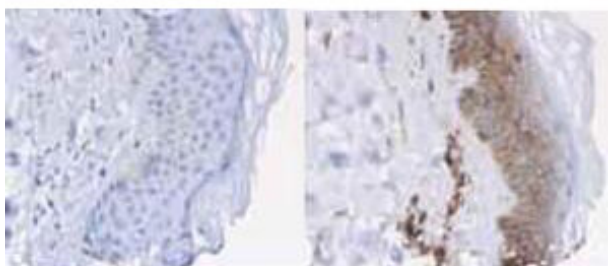
**Reconstitution Volume:** 100 µL

**Reconstitution Buffer:** Restore with deionized water (or equivalent)

## Shipping & Handling

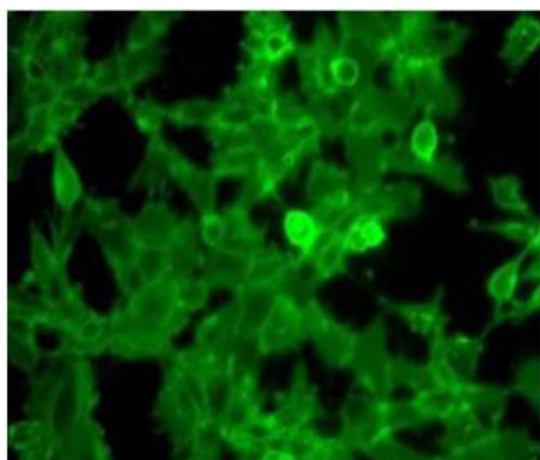
|                            |                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Ambient                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage Condition:</b>  | Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                           |

## Images



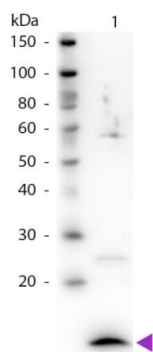
### Immunohistochemistry

Immunohistochemistry of Rabbit anti-Beta-2-Microglobulin Antibody. Tissue: normal human skin. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Left panel: isotype control, Right panel:  $\beta$ 2 microglobulin antibody at 1 ug/ml for 20 min at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization:  $\beta$ 2 microglobulin is cell membrane (and to lesser amount cytoplasmic compartment). Staining: Beta-2-Microglobulin as brown with diaminobenzidine and with a hematoxylin purple counterstain.



### Immunofluorescence Microscopy

Immunofluorescence Microscopy of Rabbit Anti-Beta-2-microglobulin antibody. Tissue: Human Embryonic Kidney cells (HEK 293 cells). Fixation: 2% paraformaldehyde for 15 minutes. Antigen retrieval: not required. Primary antibody:  $\beta$ -2 microglobulin antibody at 1:200 for overnight at 4°C. Secondary antibody: donkey anti-rabbit secondary antibody conjugated with Alexa Fluor 488 fluorochrome at 1:1,000 for 45 min at RT. Localization:  $\beta$ 2-microglobulin is mainly on the cell surface and occasionally cytoplasmic. Staining: Beta-2-microglobulin as green fluorescent signal.



#### Western Blot

Western Blot of Rabbit Anti-Beta-2-Microglobulin antibody.  
Lane 1: Beta-2-Microglobulin. Load: 50 ng per lane. Primary antibody: Beta-2-Microglobulin primary antibody at 1:1,000 overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Blocking: MB-070 for 30 min at RT. Predicted/Observed size: 12 kDa, 12 kDa for Beta-2-Microglobulin. Other band(s): Beta-2-Microglobulin splice variants and isoforms.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.