

## Recombinant Mouse B2M/Beta-2-microglobulin Protein (His Tag)

Catalog Number: PDMM100199

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

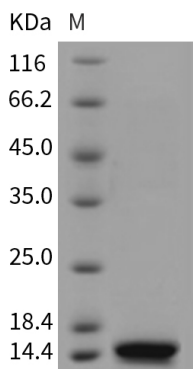
### Description

<b>Species</b>	Mouse
<b>Source</b>	HEK293 Cells-derived Mouse B2M protein Met1-Met119, with an C-terminal His
<b>Calculated MW</b>	10.8 kDa
<b>Observed MW</b>	12 kDa
<b>Accession</b>	P01887
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

B2M, also known as  $\beta$ 2-Microglobulin or CDABP0092, is a component of MHC class I molecules found expression in all nucleated cells (excludes red blood cells). The major function of MHC class I molecules is to display fragments of proteins from within the cell to T-cells and cells containing foreign proteins will be attacked. B2M ( $\beta$ 2-Microglobulin) is a low molecular weight protein. It was demonstrated that B2M ( $\beta$ 2-Microglobulin) was localized in the membranes of nucleated cells and was found to be associated with HL-A antigens. B2M ( $\beta$ 2-Microglobulin) is present in free form in various body fluids and as a subunit of histocompatibility antigens on cell surfaces lateral to the  $\alpha$ 3 chain. Unlike  $\alpha$ 3,  $\beta$ 2 has no transmembrane region. Directly above  $\beta$ 2 lies the  $\alpha$ 1 chain, which itself is lateral to the  $\alpha$ 2. In the absence of B2M ( $\beta$ 2 microglobulin), very limited amounts of MHC class I (classical and non-classical) molecules can be detected on the surface. In the absence of MHC class I, CD8 T cells, a subset of T cells involved in the development of acquired immunity cannot develop. Low levels of B2M ( $\beta$ 2 microglobulin) can indicate non-progression of HIV.