



Recombinant Protein Technical Manual

Recombinant Rat Beta-2-microglobulin/B2M Protein (His Tag) RPES3582

Product Data:

Product SKU: RPES3582

Size: 20µg

Species: Rat

Expression host: HEK293 Cells

Uniprot: P07151

Protein Information:

Molecular Mass: 13 kDa

AP Molecular Mass: 15 kDa

Tag: C-His

Bio-activity:

Purity: > 97 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: 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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: B2M

Immunogen Information:

Sequence: Met 1-Met 119

Background:

B2M, also known as β 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(β 2-Microglobulin) is a low molecular weight protein. It was demonstrated that B2M(β 2-Microglobulin) was localized in the membranes of nucleated cells and was found to be associated with HL-A antigens. B2M(β 2-Microglobulin) is present in free form in various body fluids and as a subunit of histocompatibility antigens on cell surfaces lateral to the α 3 chain. Unlike α 3, β 2 has no transmembrane region. Directly above β 2 lies the α 1 chain, which itself is lateral to the α 2. In the absence of B2M(β 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(β 2 microglobulin) can indicate non-progression of HIV.