

Recombinant Human Beta-2-Microglobulin/B2M Protein (HEK293 Cells, His Tag)

Catalog No. PKSH030949

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

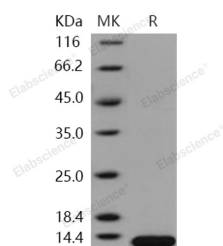
Description

Synonyms	Beta-2-Microglobulin;B2M;β2-Microglobulin
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Met 119
Accession	NP_004039.1
Calculated Molecular Weight	13.5 kDa
Observed molecular weight	13.5 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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.