

**Recombinant Human B2M / Beta-2-microglobulin Protein (His tag)**

**Cat.NO.: TP05573**

3th Edition

**Synonyms:**Beta-2 microglobulin

**Description:**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  $\beta$ 3 chain. Unlike  $\beta$ 3,  $\beta$ 2 has no transmembrane region. Directly above  $\beta$ 2 lies the  $\beta$ 1 chain, which itself is lateral to the  $\beta$ 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.

**Form:**PBS

**Molecular Weight:**13.5 kDa

**Sequences:**Met 1-Met 119

**Purity:**> 95% by HPLC

**Concentration:**

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.