NEUROMICS

# Recombinant Human beta 2 Microglobulin Protein Datasheet

**Catalog Number:** PR27237 **Product Type:** Recombinant Protein

**Source:** *E. Coli*

**Description/Molecular Mass:** Beta 2 microglobulin is an 11 kDa protein associated with the outer membrane of many cells including lymphocytes. It is the small subunit of the MHC class I molecule. Association with beta 2-microglobulin is generally required for the transport of class I heavy chains from the endoplasmic reticulum to the cell surface. Beta 2 microglobulin associates with class I-like molecules such as CD1 and Qa as well as with the alpha chain of MHC class I molecules. Very limited amounts of MHC class I molecules can be found on the surface in the absence of beta 2 microglobulin. CD8 T cells cannot develop in the absence of MHC class I.
Beta 2-microglobulin is present in small amounts in serum, csf, and urine of normal people, and to a much greater degree in the urine and plasma of patients with tubular proteinaemia, renal failure, or kidney transplants. Human Beta 2 microglobulin levels can rise either because its rate of synthesis has increased (e.g. in AIDS, malignant monoclonal plasma cell dyscrasia, solid tumors and autoimmune disease) or because of impaired renal filtration (e.g. due to renal insufficiency, graft rejection or nephrotoxicity induced by post-transplantation immunosuppressive therapy). Beta-2 microglobulin levels might also be elevated in multiple myeloma and lymphoma cases. Dialysis-related amyloidosis develops after a long-term hemodialysis, it can aggregate into amyloid fibers that deposit in joint spaces.

**Purity:** B2 Microglobulin Human Recombinant produced in E.Coli is a non-glycosylated polypeptide chain having a molecular mass of 11.76 kDa.
The B2M is purified by proprietary chromatographic techniques.
Greater than 95.0% as determined by:
(a) Analysis by SDS-PAGE.
(b) Analysis by RP-HPLC.

**Format:** The protein was lyophilized from a concentrated solution (1mg/ml) containing PBS (pH 7.4) and 0.05% NaN3.

**Storage:** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Avoid multiple freeze-thaw cycles.

*FOR RESEARCH USE ONLY*



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