

Recombinant Human B2M

Catalog No: CH02

Description	Recombinant Human beta-2-Microglobulin is produced by our E.coli expression system and the target gene encoding Ile21-Met119 is expressed with a 6His tag at the N-terminus.
Source	E. coli
Alternative name	Beta-2-Microglobulin; B2M
Accession No.	P61769
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH7.4.
Quality Control	Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Amino Acid Sequence	MGSSHHHHHHSSGLVPRGSHMIQRTPKIQVYSRHPAENGKSNFLNCYVSGFHPSDIEVDLLKNGERIE KVEHSDLSFSKDWFSY LLYYTEFTPTKDEYACRVNHVTLSPKIVKWDRDM

Background

β -2-Microglobulin (B2M) is a secreted protein with 1 Ig-like C1-type (immunoglobulin-like) domain which belongs to the beta-2-microglobulin family. B2M component of major histocompatibility complex (MHC) class I molecules, involved in the presentation of peptide antigens to the immune system. Polymers of beta 2-microglobulin can be found in tissues from patients on long-term hemodialysis. B2M is a protein found on the surface of many cells and plentiful on the surface of white blood cells. Serum B2M concentration is increased in renal diseases, various malignant diseases and some inflammatory and autoimmune disorders. B2M may adopt the fibrillar configuration of amyloid in certain pathologic states. The capacity to assemble into amyloid fibrils is concentration dependent. B2M has been shown as a marker for monitoring inflammatory disease activity and it appears likely to have a destructive role in amyloidosis-related arthritis. B2M might be involved in the OA (osteoarthritis) pathogenesis. Defects in B2M are the cause of hypercatabolic hypoproteinemia. Affected individuals show marked reduction in serum concentrations of immunoglobulin and albumin, probably due to rapid degradation. B2M could be a potential therapeutic target in ovarian cancer.

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