Recombinant Human Beta-2-Microglobulin

Cat. No. B2M-1905H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human β2 Microglobulin protein was expressed in i*nsect cells.* The expressed protein was purified by a combination of ion-exchange and gel-filtration methods.
Species	Human
Source	Insect Cells
Description	The major histocompatibility complex (MHC) gene locus encodes a group of highly polymorphic, cell surface proteins that play a broad role in the immune response to protein antigens. MHC molecules function by binding and presenting small antigenic protein fragments to antigen-specific receptors expressed by T cells (TCR). Class I MHC molecules consist of two separate polypeptide chains. The class I α chain is an MHC encoded, transmembrane polypeptide containing three extracellular domains: α1, α2 and α3. The second chain consists of a non-MHC encoded, 12 kDa polypeptide called β2 microglobulin (β2M). Since β2M does not contain a transmembrane domain, it associates with the a chain through non-covalent interaction. This association is important for the stability of the MHC class I structure, its peptide-loading and its ability to present peptide antigen to CD8+ T cells. β2M is relatively invariant within each species. For example, human β2M is reported to have high affinity for human and mouse MHC class I heavy chains.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Lys-Ala-Met-His-Val.

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Concentration	0.5 mg/ml.
Storage Buffer	Aqueous buffered solution containing ≤0.09% sodium azide.
Preparation And Storage	Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

GENE INFORMATION

Gene Name	B2M beta-2-microglobulin [Homo sapiens]
Synonyms	B2M; beta-2-microglobulin; Beta-2 microglob ulin form pI 5.3; beta-2-microglobin; beta chain of MHC class I molecules
Gene ID	567
mRNA Refseq	NM_004048
Protein Refseq	NP_004039
MIM	109700
UniProt ID	P61769
Chromosome Location	15q21-q22.2
Pathway	Antigen processing and presentation; HIV Infection; Signaling in Immune system
Function	protein binding

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