

Recombinant Human B2M, His-tagged

Cat. No. B2M-76H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Beta-2-Microglobulin, fused with N terminal His tag, was expressed in Yeast.
Species	Human
Source	Yeast
Description	Beta-2-Microglobulin (b2M) lies lateral to the $\alpha 3$ chain on the cell surface. Unlike $\alpha 3$, $\beta 2$ has no transmembrane region. Directly above $\beta 2$ lies the $\alpha 1$ chain, which itself is lateral to the $\alpha 2$. $\beta 2$ microglobulin associates not only with the alpha chain of MHC class I molecules, but also with class I-like molecules such as CD1 and Qa. An additional function is association with the HFE protein, together regulating the expression of hepcidin in the liver which targets the iron transporter ferroportin on the cytoplasmic membrane of enterocytes and macrophages for degradation resulting in decreased iron uptake from food and iron release from recycled red blood cells respectively. Loss of this function causes iron excess and hemochromatosis.
Form	Lyophilized from sterile 20mM PB, 240mM NaCl, PH6.0.
Molecular Mass	12.9kDa
Endotoxin	< 1.0 eu per μ g of the protein as determined by the LAL method.
Purity	>95 % as determined by SDS-PAGE

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Applications	Western blotting, ELISA
Storage	Store it under sterile conditions at -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -80°C.
GENE INFORMATION	
Gene Name	B2M beta-2-microglobulin [Homo sapiens]
Official Symbol	B2M
Synonyms	B2M; beta-2-microglobulin; 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	Adaptive Immune System, organism-specific biosystem; Amyloids, organism-specific biosystem; Antigen Presentation: Folding, assembly and peptide loading of class I MHC, organism-specific biosystem; Antigen processing and presentation, organism-specific biosystem; Antigen processing and presentation, conserved biosystem;

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Antigen processing-Cross presentation, organism-specific biosystem; Class I MHC mediated antigen processing and

Function

protein binding;

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