

Mouse B2M / Beta-2-microglobulin Protein (His Tag)

Catalog Number: 50957-M08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

beta2-m; beta2m; Ly-m11

Protein Construction:

A DNA sequence encoding the mouse B2M (P01887) (Met 1-Met 119), without the propeptide, was fused with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70°C

Predicted N terminal: Ile 21

Molecular Mass:

The secreted recombinant mouse B2M comprises 110 amino acids and has a calculated molecular mass of 13 kDa. The apparent molecular mass of mB2M is approximately 15 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

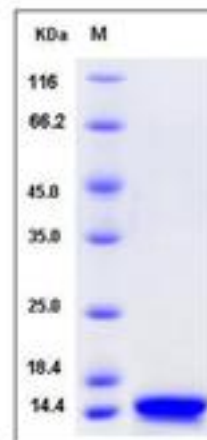
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

B2M, also known as β 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(β 2-Microglobulin) is a low molecular weight protein. It was demonstrated that B2M(β 2-Microglobulin) was localized in the membranes of nucleated cells and was found to be associated with HL-A antigens. B2M(β 2-Microglobulin) is present in free form in various body fluids and as a subunit of histocompatibility antigens on cell surfaces lateral to the α 3 chain. Unlike α 3, β 2 has no transmembrane region. Directly above β 2 lies the α 1 chain, which itself is lateral to the α 2. In the absence of B2M(β 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(β 2 microglobulin) can indicate non-progression of HIV.

References

1. Poulik MD, *et al.* (1979) Beta 2-Microglobulin: methods and clinical applications. *CRC Crit Rev Clin Lab Sci.* 10(3): 225-45.
2. Poulik MD, *et al.* (1975) Beta2-Microglobulins. *Contemp Top Mol Immunol.* 4: 157-204.
3. Berggard I. (1976) Beta2-Microglobulins: isolation, properties, and distribution. *Fed Proc.* 35(5): 1167-70.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

For US Customer: Fax: 267-657-0217 ● Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 ● Tel:+86-400-890-9989 ● <http://www.sinobiological.com>