



Synonyms

B2M

Source

Biotinylated Human beta 2-Microglobulin Protein, Avitag (B2M-H8213) is expressed from human 293 cells (HEK293). It contains AA Ile 21 - Met 119 (Accession # [P61769-1](#)).

Predicted N-terminus: Ile 21

Molecular Characterization

B2M(Ile 21 - Met 119)
P61769-1

Avi

This protein carries an Avi tag (Avitag™) at the C-terminus.

The protein has a calculated MW of 14.1 kDa. The protein migrates as 15 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

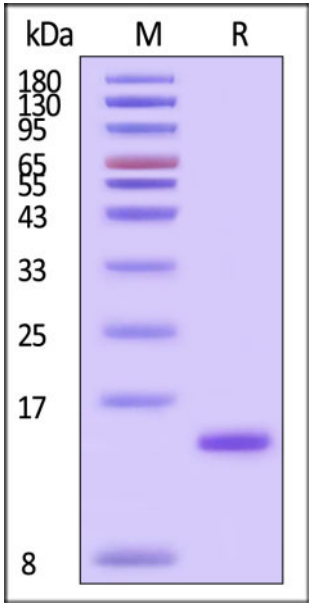
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

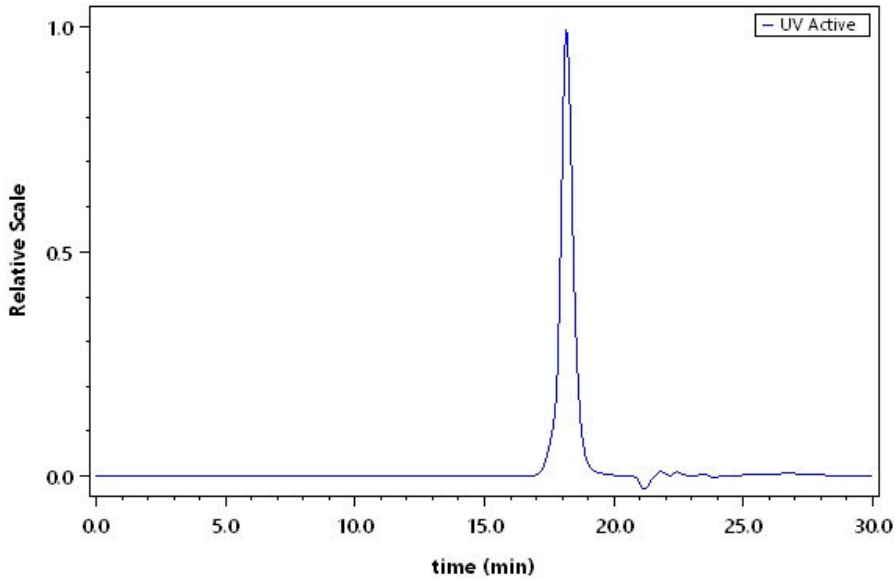
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Biotinylated Human beta 2-Microglobulin Protein, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-HPLC



The purity of Biotinylated Human beta 2-Microglobulin Protein, Avitag (Cat. No. B2M-H8213) was greater than 90% as determined by SEC-HPLC.

Background

β 2 microglobulin is also known as Beta-2-microglobulin (B2M), is a component of MHC class I molecules which belongs to the beta-2-microglobulin family. B2M is present on all nucleated cells (excludes red blood cells). B2M 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 of B2M 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. Defects in B2M are the cause of hypercatabolic hypoproteinemia (HYCATHYP).



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