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B2M Human

Beta-2 Microglobulin Human
RCP0157

Product Overview

Name	B2M Human
Description	
Beta-2 Microglobulin Human	
Accession (Primary)	P61769
Synonyms	
Beta-2-microglobulin, B2M.	

Introduction

Beta 2 microglobulin is an 11 kDa protein associated with the outer membrane of many cells including lymphocytes. It is the small subunit of the MHC class I molecule. Association with beta 2-microglobulin is generally required for the transport of class I heavy chains from the endoplasmic reticulum to the cell surface. Beta 2 microglobulin associates with class I-like molecules such as CD1 and Qa as well as with the alpha chain of MHC class I molecules. Very limited amounts of MHC class I molecules can be found on the surface in the absence of Beta 2 microglobulin. CD8 T cells cannot develop in the absence of MHC class I. Beta 2-microglobulin is present in small amounts in serum, csf, and urine of normal people, and to a much greater degree in the urine and plasma of patients with tubular proteinaemia, renal failure, or kidney transplants. Human Beta 2 microglobulin levels can rise either because its rate of synthesis has increased (e.g. in AIDS, malignant monoclonal plasma cell dyscrasia, solid tumors and autoimmune disease) or because of impaired renal filtration (e.g. due to renal insufficiency, graft rejection or nephrotoxicity induced by post-transplantation immunosuppressive therapy). Beta-2 microglobulin levels might also be elevated in multiple myeloma and lymphoma cases. Dialysis-related amyloidosis develops after a long-term hemodialysis, it can aggregate into amyloid fibers that deposit in joint spaces.

Source

Human urine from patients with tubular proteinuria.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from 0.02M NH_4HCO_3 pH-7.2, 0.15M NaCl, 1mM NaCl, 1mM EDTA, 2% mannitol and 0.09% NaN_3.

Stability

Human B2M although stable at room temperature for 3 weeks, should be stored between 2-8°C.

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Purity

Greater than 95%.

Solubility

It is recommended to reconstitute the lyophilized HuB2M in water at 1mg/ml.

Human Virus Test

Starting material tested and found negative for HIV I & II antibodies, Hepatitis B surface antigen and Hepatitis C antibodies.

Precautions

B2M Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P61769)