

Recombinant Human Beta-2-Microglobulin/B2M Protein (His Tag)

Catalog Number: PKSH033748

Note: Centrifuge before opening to ensure complete recovery of vial contents.

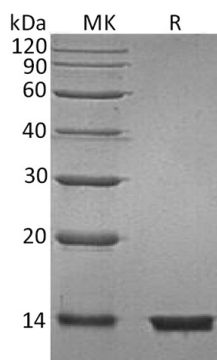
Description

Species	Human
Source	HEK293 Cells-derived Human Beta-2-Microglobulin;B2M protein Ile21-Met119, with an C-terminal His
Calculated MW	12.8 kDa
Observed MW	14 kDa
Accession	P61769
Bio-activity	Loaded Recombinant Human B2M (C-6His)(PKSH033748) on HIS1K Biosensor, can bind Human B2M Antibody with an affinity constant of 4.56 pM as determined in BLI assay.

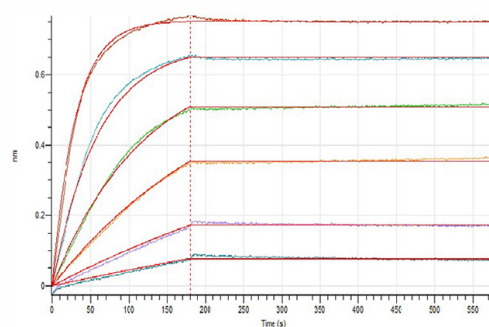
Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual.

Data



> 95 % as determined by reducing SDS-PAGE.



Loaded Recombinant Human B2M (C-6His)(PKSH033748) on HIS1K Biosensor, can bind Human B2M Antibody with an affinity constant of 4.56 pM as determined in BLI assay.

Background

β -2-Microglobulin (B2M) is a secreted protein with 1 Ig-like C1-type (immunoglobulin-like) domain which belongs to the beta-2-microglobulin family. B2M component of major histocompatibility complex (MHC) class I molecules; involved in the presentation of peptide antigens to the immune system. Polymers of beta 2-microglobulin can be found in tissues from patients on long-term hemodialysis. B2M is a protein found on the surface of many cells and plentiful on the surface of white blood cells. Serum B2M concentration is increased in renal diseases; various malignant diseases and some inflammatory and autoimmune disorders. B2M may adopt the fibrillar configuration of amyloid in certain pathologic states. The capacity to assemble into amyloid fibrils is concentration dependent. B2M has been shown as a marker for monitoring inflammatory disease activity and it appears likely to have a destructive role in amyloidosis-related arthritis. B2M might be involved in the OA (osteoarthritis) pathogenesis. Defects in B2M are the cause of hypercatabolic hypoproteinemia. Affected individuals show marked reduction in serum concentrations of immunoglobulin and albumin; probably due to rapid degradation. B2M could be a potential therapeutic target in ovarian cancer.