

Human CellExp™ Granzyme B, Human Recombinant

CATALOG No.:	7233-10	10 µg
ALTERNATE NAMES:	GZMB, CCPI, CGL-1, CGL1, CSP-B, CSPB, CTLA1, CTSLG1, HLP, SECT, Fragmentin-2, Granzyme B, Granzyme-2, GRB	
SOURCE:	HEK 293 cells (Ile 21 - Tyr 247)	
PURITY:	> 95% by SDS-PAGE	
SPECIFIC ACTIVITY:	≥5 mU/mg.	
MOL. WEIGHT:	The protein is fused with 6xHis tag at the C-terminus, has a calculated MW of ~27 kDa. The protein migrates as 35 kDa in SDS-PAGE under reducing conditions due to glycosylation.	
FORMULATION:	Lyophilized powder from 0.22 µm filtered solution in PBS. containing 8% trehalose	
STORAGE CONDITIONS:	Store at -20 °C. After reconstitution, aliquot and store at -20 °C and use within 3 months. Avoid repeated freeze-thaw cycles.	
RECONSTITUTION:	Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4. Do not vortex. Store the solution in aliquots at -20°C for long term storage.	
DESCRIPTION:	Granzyme B (GZMB) is a serine protease stored in granules of activated cytotoxic T cells and NK cells. Upon target cell contact, granzyme B is directionally exocytosed and assisted by perforin, enters the target cell. With its unique substrate specificity (granzyme B cleaves after Asp), granzyme B processes and activates various pro-caspases thereby inducing apoptosis in the target cell. Elevated abundance of Granzyme B is also implicated in autoimmune diseases, skin disorders and type 1 diabetes.	
APPLICATION:	Active GZMB is useful in studying enzyme regulation, determining target substrates, screening GZMB inhibitors, or as a positive control in GZMB activity assays	
BIOLOGICAL ACTIVITY:	Biological activity was performed using BioVision's Granzyme B Activity Fluorometric Assay Kit (Catalog #: K168).	
UNIT DEFINITION:	One unit of Granzyme B is defined as the amount of enzyme that hydrolyzes 1 µmol of Ac-IEPD-AFC per min at 37 °C under the assay conditions (100 µM substrate Ac-IETD-AFC in a buffer containing 50 mM HEPES pH 7.5, 10 mM CaCl ₂).	

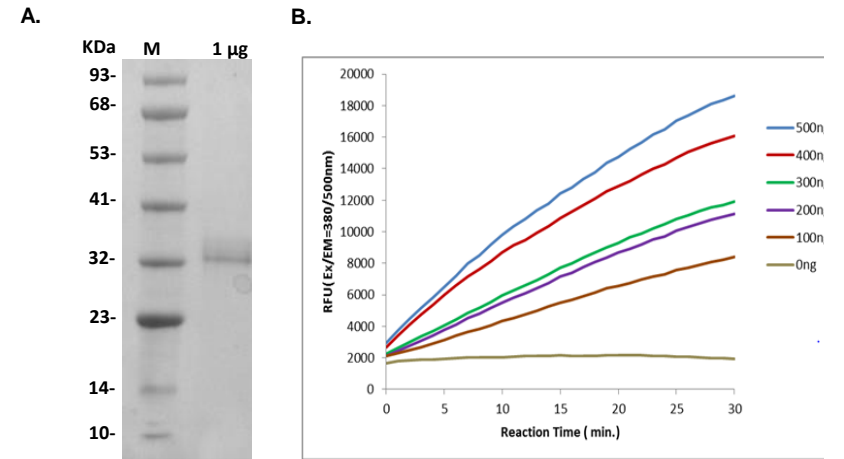


Fig A. SDS-PAGE (4-20%) of Recombinant GZMB: Recombinant protein loaded under reducing conditions and stained with Coomassie Blue. The protein migrates as 35 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Fig B. Specific activity: Assay was performed using BioVision's Granzyme B Activity Fluorometric Assay Kit (Catalog #: K168). The activity of GZMB was determined using 100 µM substrate Ac-IETD-AFC in a buffer containing 50 mM HEPES pH 7.5, 10 mM CaCl₂ at 37°C.

RELATED PRODUCT:

- Granzyme B Activity Fluorometric Assay Kit (Cat. No. K168-100)
- Granzyme B Inhibitor Screening Kit (Fluorometric) (Cat. No. K169-100)
- Granzyme A, human recombinant (Cat. No. 4279-10, -50, -1000)
- Granzyme B, human recombinant (*E.coli*) (Cat. No. 1118-5)
- Granzyme B, human recombinant (Insect) (Cat. No. 4728-5)
- Granzyme B, mouse recombinant (Insect) (Cat. No. 7608-5)
- Granzyme B Antibody (Cat. No. 3173-100)
- Granzyme B Antibody (Cat. No. 3073R-100)
- Granzyme B Antibody (Clone B18.1) (Cat. No. 3073-100)
- Granzyme B Blocking Peptide (Cat. No. 3073RBP-50)
- Granzyme B Inhibitor Ac-IEPD-CHO (Cat. No. 1119-1-50)
- Granzyme B Inhibitor Z-AAD-CH₂Cl (Cat. No. 1128-20C)

FOR RESEARCH USE ONLY! Not to be used on humans.