

Granzyme B (GZMB) Active Protein | GZMB active protein

Active Granzyme B (GZMB)

CATALOG # AAA161751	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Granzyme B (GZMB); Active Granzyme B (GZMB); Granzyme B; GZM-B; HLP; CTLA1; CCPI; CGL1; CSP-B; CSPB; CTSG1; SECT; Granzyme 2; Cytotoxic T-Lymphocyte-Associated Serine Esterase 1; Fragmentin 2; Cytotoxic Serine Protease B4; GZMB active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Gly19~Leu2 46
Applicable Applications for GZMB active protein	Activity Assay, Cell Culture
Species	Pig
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	10.2
Research Area	Apoptosis, Tumor immunity, Infection immunity, Immune molecule
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

IMAGES

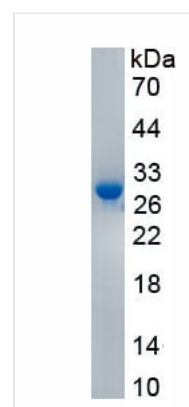
Specific Activity (pmol/min/ug)=

$$\frac{\text{Adjusted } V_{max} \times (\text{OD/min}) \times \text{well volume (L)} \times 10^{12} \text{ pmol/mol}}{\text{ext. coeff}^{**} (\text{M}^{-1}\text{cm}^{-1}) \times \text{path corr.}^{***} (\text{cm}) \times \text{amount of enzyme (ug)}}$$

*Adjusted for Substrate Blank
**Using the extinction coefficient 13260 M⁻¹cm⁻¹
***Using the path correction 0.320 cm

Bioactivity

Granzyme B is a member of the granzyme family of the serine proteases found specifically in the cytotoxic granules of cytotoxic T lymphocytes (CTL) and natural killer (NK) cells. Granzyme B plays an essential role in granule-mediated apoptosis and may have additional roles in rheumatoid arthritis and in bacterial and viral infections. It activates various caspases and cleaves proteins such as aggrecan. The activity of recombinant pig Granzyme B was measured by its ability to cleaves a thioester substrate Z-Lys-SBzl-HCl. The reaction was performed in 0.05 M Tris, 0.15 M NaCl, 0.01% Triton X-100, pH 8.0 (Assay Buffer), initiated by addition 50 uL of various concentrations of GZMB (diluted by Assay Buffer) to 50 uL of 1.2 mM Substrate and DTNB mixture. The final well serves as a negative control with no GZMB, replaced with 50 uL assay buffer. Incubated at 25 degree C for 5min, then read at a wavelength of 405 nm. The specific activity of recombinant pig Granzyme B is >440 pmol/min/ug.



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for GZMB active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GeneID	508646
UniProt Accession #	F1MTF4
Molecular Weight	29kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/granzyme-b-gzmb/161751>