

Granzyme K (GZMK) Active Protein | GZMK active protein

Active Granzyme K (GZMK)

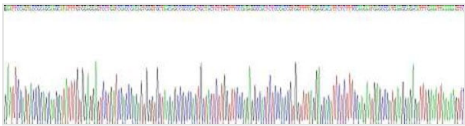
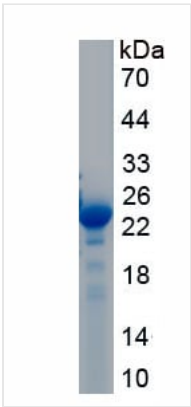
CATALOG # AAA161832	HOST E. coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Granzyme K (GZMK); Active Granzyme K (GZMK); Granzyme K; GZM-K; TRYP2; PRSS; Serine Protease; Granzyme 3; Tryptase II; Fragmentin-3; Granzyme-3; NK-tryptase-24; GZMK active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Purity/Purification	>90%
Form/Format	PBS, pH7.4, containing 0.01% Sarcosyl, 5% Trehalose
Concentration	Original Concentration: 700ug/mL (varies by lot)
Applicable Applications for GZMK active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression
Residues	Gln44~Val227
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	9.6
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



Gene Sequencing
Gene Sequencing (extract)

SDS_PAGE
Sample: Active recombinant GZMK, Mouse

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

*Adjusted for Substrate Blank
**Using the extinction coefficient 13800 M⁻¹cm⁻¹
***Using the path correction 0.320 cm

CGGVLHPQW VLTAHCYSW FPRGHSPTVV LGAHLSKNE PMKQTFEIKK QYRSKHI
FIPFSRLQSG SASHDIMLIK LRTAAELNKN VQLLHLGSKN YLRDGTKCQV
TGHGTTKPD L TASDTLREV TVTIISRKRC NSQSYNNHKP VITKDMICAG
DARGQKDSCK GDSGGPLICK GIFHALV

Sequence

Bioactivity
Granzyme K 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. Mouse granzyme K is synthesized as a precursor (263 residues) with a signal peptide (residues 121), a propeptide (residues 22-25) and a mature chain (residues 26-263). The activity of recombinant mouse Granzyme K 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 GZMK (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 GZMK, replace 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 mouse Granzyme K is >70 pmol/min/ug.

ADDITIONAL INFORMATION

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

NCBI GI #	6680143
NCBI GeneID	14945
NCBI Accession #	NP_032222.1
NCBI GenBank Nucleotide #	NM_008196.1
UniProt Accession #	O35205
Molecular Weight	Predicted Molecular Mass: 24.1kDa Accurate Molecular Mass: 24kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	granzyme K
NCBI Official Synonym Full Names	granzyme K
NCBI Official Symbol	Gzmk
NCBI Protein Information	granzyme K

UniProt Protein Name	Granzyme K
UniProt Gene Name	Gzmk
UniProt Entry Name	GRAK_MOUSE

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-k-gzmk/161832>