

ACTIVE Recombinant Human GZMA protein, His-tagged

Cat. No. GZMA-427H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GZMA protein(Ile29~Val262), fused with N-terminal His tag, was expressed in Yeast.
Species	Human
Source	Yeast
Tag	N-His
Form	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Bio-activity	Granzyme A 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 A is the most abundant protease in CTL and NK cells. It induces caspase independent cell death when introduced into target cells by perforin (1). Human granzyme A is synthesized as a precursor (262 residues) with a signal peptide (residues 1-26), a propeptide (residues 27-28) and a mature chain (residues 29-262) (2). The purified recombinant human Granzyme A consists of residues 29 to 262 which activity was measured by its ability to cleave 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 µL of various concentrations of GZMA (dilute by Assay Buffer) to 50 µL of 1.2 mM Substrate and DTNB mixture. The final well serves as a negative control with no GZMA, replace with 50µL assay buffer. Incubated at 25°C for 5min, then read at a wavelength of 405 nm. The specific activity

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of recombinant human Granzyme A is 912 pmol/min/μg.

Molecular Mass	28kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	>98%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	GZMA granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3) [Homo sapiens]
Official Symbol	GZMA
Synonyms	GZMA; granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3); CTLA3, HFSP; granzyme A; CTL tryptase; Granzyme A (Cytotoxic T lymphocyte associated serine esterase 3; Hanukah factor serine protease); HF; h factor; fragmentin-1; cytotoxic T-lymphocyte proteinase 1; Granzyme A (Cytotoxic T-lymphocyte-associated serine esterase-3; Hanukah factor serine protease); HFSP; CTLA3;
Gene ID	3001
mRNA Refseq	NM_006144

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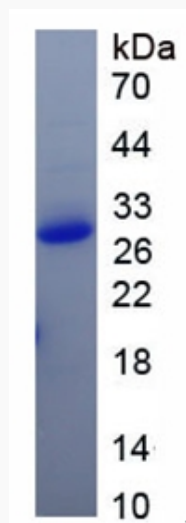
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Protein Refseq NP_006135

MIM 140050

UniProt ID P12544

SDS-PAGE



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