

Active Recombinant Human GZMA protein, His-tagged

Cat. No. GZMA-01H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human Granzyme A protein Cys26-Val262 was expressed in NS0, with a C-terminal 10-His tag.
Species	Human
Source	NS0
ProteinLength	26-262 a.a.
Description	Cytolytic T lymphocytes (CTL) and natural killer (NK) cells share the remarkable ability to recognize, bind, and lyse specific target cells. They are thought to protect their host by lysing cells bearing on their surface 'nonself' antigens, usually peptides or proteins resulting from infection by intracellular pathogens. The protein described here is a T cell- and natural killer cell-specific serine protease that may function as a common component necessary for lysis of target cells by cytotoxic T lymphocytes and natural killer cells.
Form	Lyophilized from a 0.2 µm filtered solution in MES, NaCl and CaCl ₂ with Trehalose.
Bio-activity	Measured by its ability to cleave a colorimetric peptide substrate, N-carbobenzyloxy-Gly-Arg-ThioBenzyl ester (Z-GR-SBzl), in the presence of 5,5'Dithio-bis (2-nitrobenzoic acid) (DTNB). The specific activity is >5,000 pmol/min/g, as measured under the described conditions.
Molecular Mass	Predicted Molecular Mass: 28 kDa

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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	SDS-PAGE: Multiple bands between 29-33 kDa, reducing conditions
N-terminal Sequence Analysis	Cys26
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 100 µg/mL in sterile 25 mM HEPES, 150 mM NaCl and 10 mM CaCl ₂ , pH 7.5.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	GZMA granzyme A [Homo sapiens (human)]
Official Symbol	GZMA
Synonyms	CTL Tryptase; CTLA3; CTLA3Granzyme A (Cytotoxic T-lymphocyte-associated serine esterase-3; Hanukah factorserine protease); Cytotoxic T-lymphocyte proteinase 1; EC 3.4.21; Fragmentin-1; granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3); Granzyme A; Granzyme-1; GZMA; H factor; Hanukkah factor; HF; HFSP; HFSPEC 3.4.21.78

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Gene ID	3001
mRNA Refseq	NM_006144
Protein Refseq	NP_006135
MIM	140050
UniProt ID	P12544

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