

Recombinant Human granzyme A Protein, Tag Free

Cat. No. GZMA-252H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human GranzymeA/GZMA protein (P12544-1) (Ile 29-Val 262) without tag was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	29-262aa
Description	Granzyme A (GzmA, EC 3.4.21.78, CTLA3, HuTPS, T-cell associated protease 1, cytotoxic T lymphocyte serine protease, TSP-1, T-cell derived serine proteinase) is a tryptase and is one of the five granzymes encoded in the human genome. In humans, GzmA is encoded by the GZMA gene in proximity to the GZMK gene on chromosome 5. This enzyme is present in cytotoxic T lymphocyte (CTL) granules. GzmA cleaves proteins after arginine or lysine basic residues. In CTL-targeted cells, it activates caspase-independent programmed cell death pathways that are unique and parallel to that of Granzyme B, although some substrates such as PARP-1 and lamin B are shared with Granzyme B. Substrates of GzmA include Pro-IL-1β, NDUFS3, SET, APE1, and Ku70 among others. In vitro studies suggest that GzmA may have less cytotoxic capabilities than GzmB. In colorectal cancer, GzmA was associated with promotion of cancer development, which may be due to activation of inflammation-inducing cytokines from macrophages.
Tag	Non

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Molecular Mass	26.2 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.
GENE INFORMATION	
Gene Name	GZMA granzyme A [Homo sapiens (human)]
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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Protein Refseq	NP_006135
MIM	140050
UniProt ID	P12544

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