

Active Recombinant Human GZMB protein, His-tagged

Cat. No. GZMB-315H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GZMB(Gly19-Tyr247) fused with His tag at C-terminal was expressed in NS0.
Species	Human
Source	Mammalian Cells
ProteinLength	19-247 a.a.
Description	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. Human Granzyme B is synthesized as a precursor (247 residues) with a signal peptide (residues 1-18), a pro peptide (residues 19-20), and a mature chain (residues 21-247). The rhGranzyme B consisting of residues 19-247 was expressed and purified. After being activated by active cathepsin C, rhGranzyme B cleaves a thioester substrate described previously.
Predicted N Terminal	Gly19
Form	Supplied as a 0.2 µm filtered solution in Tris and NaCl.
Bio-activity	Measured by its ability to cleave a peptide substrate, t-Butyloxycaronyl-Ala-Ala-Asp-T

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	hioBenzyl ester (Boc-AAD-SBzl), in the presence of 5,5'-Dithio-bis (2-nitrobenzoic acid) (DTNB). The specific activity is >1,000 pmol/min/g
Molecular Mass	Predicted Molecular Mass: 27 kDa;SDS-PAGE: 37 kDa, reducing conditions
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	Avoid repeated freeze-thaw cycles.6 months from date of receipt, -70 centigrade as supplied.3 months, -70 centigrade under sterile conditions after opening.
GENE INFORMATION	
Gene Name	GZMB granzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1) [Homo sapiens]
Official Symbol	GZMB
Synonyms	GZMB; granzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1); CSPB, CTLA1; granzyme B; cathepsin G like 1; CCPI; CGL 1; CGL1; CSP B; CTSG1; cytotoxic serine protease B; fragmentin 2; HLP; SECT; T cell serine protease 1 3E; C11; CTLA-1; fragmentin-2; cathepsin G-like 1; human lymphocyte protein; T-cell serine protease 1-3E; cytotoxic T-lymphocyte proteinase 2; CSPB; CGL-1; CSP-B; CTLA1;
Gene ID	3002
mRNA Refseq	NM_004131
Protein Refseq	NP_004122

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MIM	123910
UniProt ID	P10144
Chromosome Location	14q11.2
Pathway	Activation, myristoylation of BID and translocation to mitochondria, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Apoptosis, organism-specific biosystem; Apoptosis, organism-specific biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem;
Function	catalytic activity; peptidase activity; protein binding; serine-type endopeptidase activity; serine-type endopeptidase activity; serine-type peptidase activity;

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