

## Active Recombinant Mouse Granzyme B, His-tagged

**Cat. No.** Gzmb-1966M    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Mouse Gzmb protein was expressed in Murine myeloma cell line. Lys17-Ser247, with a C-terminal 10-His tag.
<b>Species</b>	Mouse
<b>Source</b>	Mammalian Cells
<b>Protein Length</b>	17-247 a.a.
<b>Description</b>	Gzmb 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. Gzmb 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. Mouse Gzmb is synthesized as a precursor (247 residues) with a signal and a pro peptide (residues 1-20) and a mature chain (residues 21-247). The recombinant mouse Gzmb consisting of residues 17 to 247 was expressed and purified. After activation with cathepsin C, it cleaves a thioester substrate described in the Activity Assay Protocol.
<b>Form</b>	Supplied as a 0.2 µm filtered solution in HEPES, NaCl and CaCl <sub>2</sub> .
<b>N-terminal Sequence</b>	Lys17 & Gly19
<b>Molecular Weight</b>	27 kDa

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<b>Activity</b>	Measured by its ability to cleave a peptide substrate, t-ButyloxycaronylAla-Ala-Asp-Thi oBenzylester (Boc-AAD-SBzl), in the presence of 5, 5'-Dithio-bis (2-nitrobenzoic acid)(DTNB). The specific activity is > 2,000 pmoles/min/μg as measured under the described conditions.
<b>Endotoxin Level</b>	<1.0EU per 1μg of the protein by the LAL method.
<b>SDS-PAGE</b>	Multiple bands between 34-38 kDa, reducing conditions.
<b>Purity</b>	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70°C as supplied. 3 months, -20 to -70°C under sterile conditions after opening.


## GENE INFORMATION

<b>Gene Name</b>	Gzmb granzyme B [ Mus musculus ]
<b>Official Symbol</b>	Gzmb
<b>Synonyms</b>	Gzmb; granzyme B; GZB; CCP1; Ctla1; Ctla-1; AI553453; CCP-1/C11; granzyme B (G, H); fragmentin-2; cytotoxic cell protease 1; EC 3.4.21.79
<b>Gene ID</b>	14939
<b>mRNA Refseq</b>	NM_013542
<b>Protein Refseq</b>	NP_038570
<b>UniProt ID</b>	P04187

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<b>Chromosome Location</b>	14
<b>Pathway</b>	Activation; Allograftrejection; Apoptosis; Autoimmune thyroid disease; Graft-versus-host disease; IntrinsicPathway for Apoptosis; Natural killer cell mediated cytotoxicity; Oxidativephosphorylation; Transcriptional misregulation in cancer; Type I diabetesmellitus
<b>Function</b>	catalytic activity; hydrolaseactivity; peptidase activity; protein binding; serine-type endopeptidaseactivity; serine-type peptidase activity
<b>Protein GZMB PDB1fq3</b>	

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