

Active Recombinant Mouse Granzyme B, His-tagged

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

SPECIFICATION

Product Overview	Recombinant Mouse Gzmb protein was expressed in Murine myeloma cell line. Lys17-Ser247, with a C-terminal 10-His tag.
Species	Mouse
Source	Mammalian Cells
Protein Length	17-247 a.a.
Description	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.
Form	Supplied as a 0.2 µm filtered solution in HEPES, NaCl and CaCl ₂ .
N-terminal Sequence	Lys17 & Gly19
Molecular Weight	27 kDa

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Activity	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.
Endotoxin Level	<1.0EU per 1μg of the protein by the LAL method.
SDS-PAGE	Multiple bands between 34-38 kDa, reducing conditions.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	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

Gene Name	Gzmb granzyme B [Mus musculus]
Official Symbol	Gzmb
Synonyms	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
Gene ID	14939
mRNA Refseq	NM_013542
Protein Refseq	NP_038570
UniProt ID	P04187

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Chromosome Location	14
Pathway	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
Function	catalytic activity; hydrolaseactivity; peptidase activity; protein binding; serine-type endopeptidaseactivity; serine-type peptidase activity
Protein GZMB PDB1fq3	