Active Recombinant Mouse Granzyme B, His-tagged

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

SPECIFICATION

Product Overview	RecombinantMouse Gzmb protein was expressed in Murine myeloma cell line. Lys17-Ser247,with a C-terminal 10-His tag.
Species	Mouse
Source	Mammalian Cells
ProteinLength	17-247 a.a.
Description	Gzmb is amember of the granzyme family of the serine proteases found specifically inthe cytotoxic granules of cytotoxic T lymphocytes (CTL) and natural killer(NK) cells. Gzmb plays anessential role in granule-mediated. Apoptosis and may have additional rolesin rheumatoid arthritis and in bacterial and viral infections. It activates variouscaspases and cleaves proteins such as aggrecan. Mouse Gzmb issynthesized 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 Gzmbconsisting of residues 17 to 247 was expressed and purified. After activationwith cathepsin C, it cleaves a thioester substrate described in the ActivityAssay Protocol.
Form	Supplied as a 0.2 μmfiltered solution in HEPES, NaCl and CaCl2.
N-terminalSequence	Lys17 & Gly19
MolecularWeight	27 kDa

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Activity	Measuredby its ability to cleave a peptide substrate, t-ButyloxycaronylAla-Ala-Asp-ThioBenzylester (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 underthe described conditions.
Endotoxin Level	<1.0EU per 1μg of the protein by the LAL method.
SDS-PAGE	Multiplebands between 34-38 kDa, reducing conditions.
Purity	>95%,by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	Use amanual defrost freezer and avoid repeated freezethaw cycles. 6 monthsfrom date of receipt, -20 to -70°C as supplied. 3 months, -20 to -70°C understerile conditions after opening.

GENE INFORMATION

Gene Name	Gzmb granzyme B [Musmusculus]
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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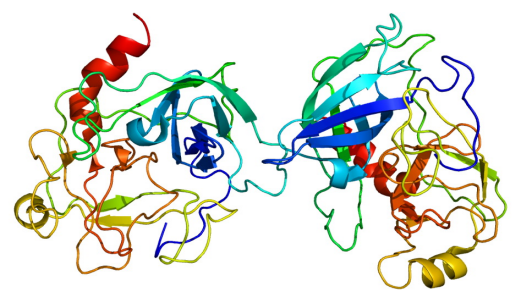
Chromosome Location	14
Pathway	Activation; Allograftrejection; Apoptosis; Autoimmune thyroid disease; Graft-versus-host disease; IntrinsicPathway for Apoptosis; Natural killer cell mediated cytotoxicity; Oxidativephosphorylation; Transcriptional misregulation in cancer; Type I diabetesmellitus
Function	catalytic activity; hydrolaseactivity; peptidase activity; protein binding; serine-type endopeptidaseactivity; serine-type peptidase activity
Protein GZMB PDB1fq3	

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