Granzyme B/GZMB Protein, Mouse (HEK293, C-His)

Cat. No.:	HY-P70253A
Synonyms:	rMuGranzyme B/GZMB, His; Granzyme B(G; H); CTLA-1; Cytotoxic cell protease 1; CCP1; Fragmentin-2; Gzmb; Ctla-1; Ctla1
Species:	Mouse
Source:	HEK293
Accession:	P04187 (G19-S247)
Gene ID:	14939
Molecular Weight:	Approximately 35.0 kDa

PROPERTIES

AA Sequence	G E I I G G H E V K P H S R P Y M A L L S I K D Q Q P E A I C G G F L I R E D F V L T A A H C E G S I I N V T L G A H N I K E Q E K T Q Q V I P M V K C I P H P D Y N P K T F S N D I M L L K L K S K A K R T R A V R P L N L P R R N V N V K P G D V C Y V A G W G R M A P M G K Y S N T L Q E V E L T V Q K D R E C E S Y F K N R Y N K T N Q I C A G D P K T K R A S F R G D S G G P L V C K K V A A G I V S Y G Y K D G S P P R A F T K V S S F L S W I K K T M K S S
Biological Activity	Measured by its ability to cleave a peptide substrate, t-Butyloxycaronyl-Ala-Ala-Asp-ThioBenzyl ester (Boc-AAD-SBzl), in the presence of 5,5'-Dithio-bis (2-nitrobenzoic acid) (DTNB). The specific activity is 2356 pmol/min/μg as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Granzyme B/GZMB Protein, an abundant protease found in the cytosolic granules of cytotoxic T-cells and NK-cells, plays a crucial role in various cellular processes. When delivered into the target cell through the immunological synapse, Granzyme

B/GZMB activates caspase-independent pyroptosis, leading to target cell death. It achieves this by cleaving after Asp and catalyzing the cleavage of gasdermin-E (GSDME), releasing the pore-forming component of GSDME, which triggers pyroptosis. Granzyme B/GZMB is also involved in the activation cascade of caspases, including caspase-3, -9, and -7, which are responsible for apoptosis execution and plasma membrane repair in response to bacterial infection.

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