Granzyme B Murine Baculovirus

Product Data Sheet

Type: Recombinant
Source: Baculovirus
Species: Murine
Other names: Granzyme 2, Fragmentin 2, Human lymphocyte protein

Cat. No.:	
RBG20076002	(2 µg)
RBG20076010	(10 µg)
RBG20076100	(100 µg)

Description

Granzyme B is a cysteine protease found in the cytoplasmic granules of cytolytic T lymphocytes (CTL) and natural killer (NK) cells. Granzyme B is required for the induction of target cell lysis, which occurs as part of cell-mediated immune responses, and can activate apoptosis in target cells by both caspase-dependent and caspase-independent mechanisms. Proteolytic cleavage of substrates by Granzyme B takes place primarily after aspartic acid residues. Recombinant Murine Granzyme B is a glycosylated 227 amino acid protein, comprising the mature active portion of the murine Granzyme B precursor. The apparent molecular weight is 28.9 kDa by mass spectrometry.

Introduction to the Molecule

Granzymes are exogenous serine proteinases (enzymes) that are released from cytoplasmic granules of cytotoxic lymphocytes and NK cells. Percentages of the Granzyme A and B positive CTLs can be determined by flow cytometry and immunocytochemical methods for many disorders (viral infections, lymphomas, carcinomas, rheumatoid arthritis and transplantation).

Research topic

Apoptosis, Immune Response, Infection and Inflammation, Transplantation

Amino Acid Sequence

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IIGGHEVKPH SRPYMALLSI KDQQPEAICG GFLIREDFVL TAAHCEGSII NVTLGAHNIK EQEKTQQVIP MVKCIPHPDY
NPKTFSNDIM LLKLKSKAKR TRAVRPLNLP RRNVNVKPGD VCYVAGWGRM APMGKYSNTL QEVELTVQKD RECESYFKNR
YNKTNQICAG DPKTKRASFR GDSGGPLVCK KVAAGIVSYG YKDGSPPRAF TKVSSFLSWI KKTMKSS
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Source

Baculovirus

Purity

98%

Biological Activity

Determined by its ability to cleave a synthetic chromogentic Granzyme B substrate. The expected specific activity, when using the Ac-IEPD-pNA substrate at 25?C, is greater than 750 nM/min per µg of enzyme.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C

Storage, Stability/Shelf Life

-20°C

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