GZMA Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	GZMA, Blocking Peptide
Full Product Name	GZMA Blocking Peptide
Product Gene Name	GZMA blocking peptide
Product Synonym Names	CTL tryptase; CTLA3; Cytolytic t cell and natural killer cell specific trypsin like serine protease; Cytotoxic T lymphocyte associated serine esterase 3; Cytotoxic T lymphocyte proteinase 1; Cytotoxic T-lymphocyte proteinase 1; Fragmentin 1; Fragmentin-1; GRAA_HUMAN; Granzyme 1 cytotoxic T lymphocyte associated serine esterase 3; Granzyme A (Cytotoxic T lymphocyte associated serine esterase 3; Hanukah factor serine protease); Granzyme A (granzyme 1, cytotoxic T lymphocyte associated serine esterase 3); Granzyme A; Granzyme A precursor; Granzyme-1; GZMA; H factor; Hanukah factor serine protease; Hanukkah factor; HF; HFSP; TSP1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	GZMA peptide (MBS9628075) is used for blocking the activity of GZMA antibody (MBS9609371)
Molecular Weight	28,999 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (54398474..54406080). Location: 5q11-q12
OMIM	140050
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for GZMA blocking peptide	Blocking/Control
Related Product Information for GZMA blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of GZMA blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GZMA purchase	MBS9628075 is a blocking peptide targeting GZMA.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GZMA. It may not necessarily be applicable to this product.

NCBI GI #	5453676
NCBI GeneID	3001

NCBI Accession #	NP_006135.1
UniProt Primary Accession #	P12544
UniProt Secondary Accession #	Q6IB36; A4PHN1
UniProt Related Accession #	P12544
GenBank Nucleotide #	NM_006144.3
NCBI Official Full Name	granzyme A
NCBI Official Synonym Full Names	granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3)
NCBI Official Symbol	GZMA
NCBI Official Synonym Symbols	HFSP; CTLA3
UniProt Protein Name	Granzyme A
UniProt Synonym Protein Names	CTL tryptase; Cytotoxic T-lymphocyte proteinase 1; Fragmentin-1; Granzyme-1; Hanukkah factor
Protein Family	Granzyme
UniProt Gene Name	GZMA
UniProt Synonym Gene Names	CTLA3; HFSP; H factor; HF
UniProt Entry Name	GRAA_HUMAN
NCBI Protein Information	granzyme A; HF; h factor; CTL tryptase; fragmentin-1; cytotoxic T-lymphocyte proteinase 1; Granzyme A (Cytotoxic T-lymphocyte-associated serine esterase-3; Hanukah factor serine protease)
NCBI Summary for GZMA	Cytolytic T lymphocytes (CTL) and natural killer (NK) cells share the remarkable ability to recognize, bind, and lyse specific target cells. They are thought to protect their host by lysing cells bearing on their surface 'nonself' antigens, usually peptides or proteins resulting from infection by intracellular pathogens. The protein described here is a T cell- and natural killer cell-specific serine protease that may function as a common component necessary for lysis of target cells by cytotoxic T lymphocytes and natural killer cells. [provided by RefSeq, Jul 2008]
UniProt Comments for GZMA	GZMA: This enzyme is necessary for target cell lysis in cell- mediated immune responses. It cleaves after Lys or Arg. Cleaves APEX1 after 'Lys-31' and destroys its oxidative repair activity. Involved in apoptosis. Homodimer; disulfide-linked. Interacts with APEX1. Dexamethasone (DEX) induces expression of isoform beta and represses expression of isoform alpha. The alteration in expression is mediated by binding of glucocorticoid receptor to independent promoters adjacent to the alternative first exons of isoform alpha and isoform beta. Belongs to the peptidase S1 family. Granzyme subfamily. 2 isoforms of the human protein are produced by alternative promoter. Protein type: Apoptosis; Secreted, signal peptide; Protease; EC 3.4.21.78; Secreted Chromosomal Location of Human Ortholog: 5q11-q12 Cellular Component: extracellular region; immunological synapse; nucleus Molecular Function: protein binding; protein homodimerization activity; serine-type endopeptidase activity Biological Process: proteolysis involved in cellular protein catabolic process; positive regulation of apoptosis; apoptosis; cytolysis; negative regulation of oxidoreductase activity; negative regulation of endodeoxyribonuclease activity; immune response; negative regulation of DNA binding
Research Articles on GZMA	**1.** Patients with chronic immune thrombocytopenia have elevated serum granzyme A levels.
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