MMP13 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	MMP13, Blocking Peptide
Full Product Name	MMP13 Blocking Peptide
Product Gene Name	MMP13 blocking peptide
Product Synonym Names	CLG 3; CLG3; Collagenase 3; Collagenase3; MANDP1; Matrix metallopeptidase 13 (collagenase 3); Matrix Metalloproteinase 13; Matrix metalloproteinase-13; MMP 13; MMP-13; Mmp13; MMP13_HUMAN
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	MMP13 peptide (MBS9625866) is used for blocking the activity of MMP13 antibody (MBS9607150)
Molecular Weight	53,820 Da
Chromosome Location	Chromosome: 11; NC_000011.9 (102813721..102826463, complement). Location: 11q22.3
OMIM	600108
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 MMP13 blocking peptide	Blocking/Control
Related Product Information for MMP13 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 MMP13 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 MMP13 purchase	MBS9625866 is a blocking peptide targeting MMP13.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MMP13. It may not necessarily be applicable to this product.

NCBI GI #	4505209
NCBI GeneID	4322
NCBI Accession #	NP_002418.1
UniProt Primary Accession #	P45452
UniProt Secondary Accession #	Q6NWN6; A8K846; B2RCZ3

UniProt Related Accession #	P45452
GenBank Nucleotide #	NM_002427.3
NCBI Official Full Name	collagenase 3 preproprotein
NCBI Official Synonym Full Names	matrix metallopeptidase 13 (collagenase 3)
NCBI Official Symbol	MMP13
NCBI Official Synonym Symbols	CLG3; MANDP1
UniProt Protein Name	Collagenase 3
UniProt Synonym Protein Names	Matrix metalloproteinase-13
Protein Family	Collagenase
UniProt Gene Name	MMP13
UniProt Synonym Gene Names	MMP-13
UniProt Entry Name	MMP13_HUMAN
NCBI Protein Information	collagenase 3; MMP-13; matrix metalloproteinase 13 (collagenase 3)
NCBI Summary for MMP13	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The protein encoded by this gene cleaves type II collagen more efficiently than types I and III. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3. [provided by RefSeq, Jul 2008]
UniProt Comments for MMP13	MMP13: Degrades collagen type I. Does not act on gelatin or casein. Could have a role in tumoral process. Defects in MMP13 are the cause of spondyloepimetaphyseal dysplasia Missouri type (SEMD-MO). A bone disease characterized by moderate to severe metaphyseal changes, mild epiphyseal involvement, rhizomelic shortening of the lower limbs with bowing of the femora and/or tibiae, coxa vara, genu varum and pear-shaped vertebrae in childhood. Epimetaphyseal changes improve with age. Defects in MMP13 are the cause of metaphyseal anadysplasia type 1 (MANDP1). Metaphyseal anadysplasia consists of an abnormal bone development characterized by severe skeletal changes that, in contrast with the progressive course of most other skeletal dysplasias, resolve spontaneously with age. Clinical characteristics are evident from the first months of life and include slight shortness of stature and a mild varus deformity of the legs. Patients attain a normal stature in adolescence and show improvement or complete resolution of varus deformity of the legs and rhizomelic micromelia. Belongs to the peptidase M10A family. Protein type: Secreted; Secreted, signal peptide; EC 3.4.24.-; Protease Chromosomal Location of Human Ortholog: 11q22.3 Cellular Component: proteinaceous extracellular matrix; extracellular space; extracellular region Molecular Function: collagen binding; zinc ion binding; metalloendopeptidase activity; calcium ion binding Biological Process: collagen catabolic process; extracellular matrix disassembly; extracellular matrix organization and biogenesis; cellular protein metabolic process; proteolysis; bone mineralization; endochondral ossification Disease: Spondyloepimetaphyseal Dysplasia, Missouri Type
Research Articles on MMP13	**1.** The present results suggest that the S100A4 gene may control the invasive potential of human breast cancer cells by modulating MMP-13 levels, thus regulating metastasis and angiogenesis in breast tumors.
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