

MMP2 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13693c**Specification**

MMP2 Antibody (Center) Blocking peptide - Product InformationPrimary Accession [P08253](#)**MMP2 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 4313**Other Names**

72 kDa type IV collagenase, 72 kDa gelatinase, Gelatinase A, Matrix metalloproteinase-2, MMP-2, TBE-1, PEX, MMP2, CLG4A

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13693c was selected from the Center region of MMP2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MMP2 Antibody (Center) Blocking peptide - Protein Information**Name** MMP2**Synonyms** CLG4A**Function**

Ubiquitous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta- type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-|-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. Involved in the formation of the fibrovascular tissues in association with MMP14. [Isoform 2]: Mediates the proteolysis of CHUK/IKKA and initiates a primary innate immune response by inducing mitochondrial- nuclear stress signaling with activation of the pro-inflammatory NF-kappaB, NFAT and IRF transcriptional pathways.

Cellular Location

[Isoform 1]: Secreted, extracellular space, extracellular matrix. Membrane. Nucleus
Note=Colocalizes with integrin alphaV/beta3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes

Tissue Location

Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate

MMP2 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

MMP2 Antibody (Center) Blocking peptide - Images**MMP2 Antibody (Center) Blocking peptide - Background**

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. This gene encodes an enzyme which degrades type IV collagen, the major structural component of basement membranes. The enzyme plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Two transcript variants encoding different isoforms have been found for this gene.

MMP2 Antibody (Center) Blocking peptide - References

Beshir, A.B., et al. Cancer Lett. 299(2):137-149(2010) Alakus, H., et al. World J Surg 34(12):2853-2859(2010) Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :Nikopensius, T., et al. Birth Defects Res. Part A Clin. Mol. Teratol. 88(9):748-756(2010) Mossbock, G., et al. Mol. Vis. 16, 1764-1770 (2010) :