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TIMP3 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21717b

Specification

TIMP3 Blocking Peptide (C-term) - Product Information

Primary Accession P35625

TIMP3 Blocking Peptide (C-term) - Additional Information

Gene ID 7078

Other Names
Metalloproteinase inhibitor 3, Protein MIG-5, Tissue inhibitor of metalloproteinases 3, TIMP-3, TIMP3

Target/Specificity
The synthetic peptide sequence is selected from aa 196-210 of HUMAN TIMP3

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.

TIMP3 Blocking Peptide (C-term) - Protein Information

Name TIMP3

Function
Mediates a variety of processes including matrix regulation and turnover, inflammation, and angiogenesis, through reversible inhibition of zinc protease superfamily enzymes, primarily matrix metalloproteinases (MMPs). Regulates extracellular matrix (ECM) remodeling through inhibition of matrix metalloproteinases (MMP) including MMP-1, MMP-2, MMP-3, MMP-7, MMP-9, MMP-13, MMP-14 and MMP-15. Additionally, modulates the processing of amyloid precursor protein (APP) and apolipoprotein E receptor ApoER2 by inhibiting two alpha- secretases ADAM10 and ADAM17 (PubMed:17913923). Functions as a tumor suppressor and a potent inhibitor of angiogenesis. Exerts its anti- angiogenic effect by directly interacting with vascular endothelial growth factor (VEGF) receptor-2/KDR, preventing its binding to the VEGFA ligand (PubMed:12652295). Selectively induces apoptosis in angiogenic endothelial cells through a caspase-independent cell death pathway (PubMed:25558000). Mechanistically, inhibits matrix-induced focal adhesion kinase

PTK2 tyrosine phosphorylation and association with paxillin/PXN and disrupts the incorporation of ITGB3, PTK2 and PXN into focal adhesion contacts on the matrix (PubMed:25558000).

Cellular Location
Secreted, extracellular space, extracellular matrix

TIMP3 Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides

TIMP3 Blocking Peptide (C-term) - Images

TIMP3 Blocking Peptide (C-term) - Background

Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. May form part of a tissue-specific acute response to remodeling stimuli. Known to act on MMP-1, MMP-2, MMP-3, MMP-7, MMP-9, MMP-13, MMP-14 and MMP-15.

TIMP3 Blocking Peptide (C-term) - References

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Wilde C.G.,et al.DNA Cell Biol. 13:711-718(1994).
Silbiger S.M.,et al.Gene 141:293-297(1994).
Wick M.,et al.J. Biol. Chem. 269:18953-18960(1994).
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