

Product Name: Cleaved-MMP-14 (Y112) Rabbit Polyclonal Antibody
Catalog #: APRab09011

Summary

Production Name	Cleaved-MMP-14 (Y112) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	MMP14
Alternative Names	MMP14; Matrix metalloproteinase-14; MMP-14; MMP-X1; Membrane-type matrix metalloproteinase 1; MT-MMP 1; MTMMP1; Membrane-type-1 matrix metalloproteinase; MT1-MMP; MT1MMP
Gene ID	4323.0
SwissProt ID	P50281.The antiserum was produced against synthesized peptide derived from human MMP14. AA range:93-142

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000
Molecular Weight	53kD

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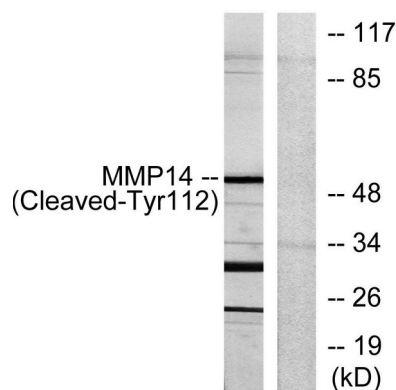
Background

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 MMPs are secreted as inactive propeptides which are activated when cleaved by extracellular proteinases. However, the protein encoded by this gene is a member of the membrane-type MMP (MT-MMP) subfamily; each member of this subfamily contains a potential transmembrane domain suggesting that these proteins are expressed at the cell surface rather than secreted. This protein activates MMP2 protein, and this activity may be involved in tumor invasion. [provided by RefSeq, Jul 2008],catalytic activity:Endopeptidase activity. Activates progelatinase A by cleavage of the propeptide at 37-Asn-|-Leu-38. Other bonds hydrolyzed include 35-Gly-|-Ile-36 in the propeptide of collagenase 3, and 341-Asn-|-Phe-342, 441-Asp-|-Leu-442 and 354-Gln-|-Thr-355 in the aggrecan interglobular domain.,cofactor: Binds 1 zinc ion per subunit.,cofactor: Calcium.,domain: The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.,function: Seems to specifically activate progelatinase A. May thus trigger invasion by tumor cells by activating progelatinase A on the tumor cell surface.,PTM: The precursor is cleaved by a furin endopeptidase.,similarity: Belongs to the peptidase M10A family.,similarity: Contains 4 hemopexin-like domains.,subcellular location: Identified by mass spectrometry in melanosome fractions from stage I to stage IV.,tissue specificity: In stromal cells of colon, breast, and head and neck.,

Research Area

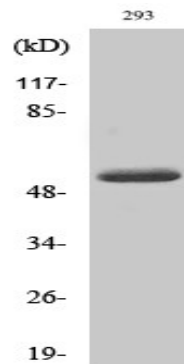
GnRH;

Image Data



Western blot analysis of lysates from 293 cells, treated with etoposide 25uM 1h, using MMP14 (Cleaved-Tyr112) Antibody. The lane on the right is blocked with the synthesized peptide.

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Western Blot analysis of various cells using Cleaved-MMP-14 (Y112) Polyclonal Antibody

Note

For research use only.