

MMP14 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51350

Product Information

Application WB Primary Accession P50281

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW65894

Additional Information

Gene ID 4323

Other Names Matrix metalloproteinase-14, MMP-14, MMP-X1, Membrane-type matrix

metalloproteinase 1, MT-MMP 1, MTMMP1, Membrane-type-1 matrix

metalloproteinase, MT1-MMP, MT1MMP, MMP14

Dilution WB~~1:1000

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name MMP14

Function Endopeptidase that degrades various components of the extracellular matrix

such as collagen (PubMed:<u>8015608</u>). Essential for pericellular collagenolysis

and modeling of skeletal and extraskeletal connective tissues during

development (By similarity). Activates progelatinase A/MMP2, thereby acting as a positive regulator of cell growth and migration (PubMed:22065321, PubMed:8015608). Involved in the formation of the fibrovascular tissues in association with pro-MMP2 (PubMed:12714657, PubMed:22065321). May be

involved in actin cytoskeleton reorganization by cleaving PTK7

(PubMed: <u>20837484</u>). Acts as a regulator of Notch signaling by mediating cleavage and inhibition of DLL1 (PubMed: <u>21572390</u>). Cleaves ADGRB1 to release vasculostatin-40 which inhibits angiogenesis (PubMed: <u>22330140</u>). Acts as a negative regulator of the GDF15-GFRAL aversive response by mediating

cleavage and inactivation of GFRAL (PubMed:35177851).

Cellular Location Cell membrane; Single-pass type I membrane protein. Melanosome.

Cytoplasm Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). Forms a complex with BST2 and

localizes to the cytoplasm (PubMed:17081065)

Tissue Location

Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors.

Background

Seems to specifically activate progelatinase A. May thus trigger invasion by tumor cells by activating progelatinase A on the tumor cell surface. May be involved in actin cytoskeleton reorganization by cleaving PTK7. Acts as a positive regulator of cell growth and migration via activation of MMP15.

References

Sato H.,et al.Nature 370:61-65(1994).
Takino T.,et al.Gene 155:293-298(1995).
Okada A.,et al.Proc. Natl. Acad. Sci. U.S.A. 92:2730-2734(1995).
Will H.,et al.Eur. J. Biochem. 231:602-608(1995).
Luo G.-X.,et al.Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.

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