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Anti-MMP-14 Antibody

Catalog # ABO11457

Product Information

Application	WB, IHC-P
Primary Accession	P50281
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Matrix metalloproteinase-14(MMP14) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	4323
Other Names	Matrix metalloproteinase-14, MMP-14, 3.4.24.80, MMP-X1, Membrane-type matrix metalloproteinase 1, MT-MMP 1, MTMMP1, Membrane-type-1 matrix metalloproteinase, MT1-MMP, MT1MMP, MMP14
Calculated MW	65894
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat, Mouse
Subcellular Localization	Membrane ; Single-pass type I membrane protein . Melanosome. Cytoplasm. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Forms a complex with BST2 and localizes to the cytoplasm.
Tissue Specificity	Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors. .
Source	Eukaryota
Protein Name	Matrix metalloproteinase-14
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MMP14(567-582aa TPRRLLYCQRSLLDKV), different from the related mouse and rat sequences by one amino acid.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the peptidase M10A family.

Protein Information

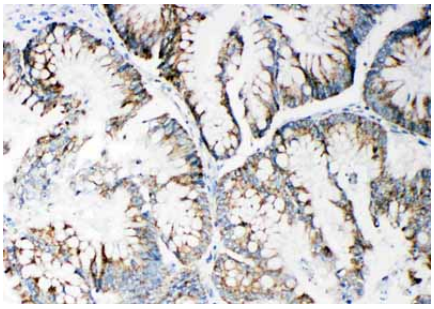
Name	MMP14
Function	Endopeptidase that degrades various components of the extracellular matrix such as collagen (PubMed:8015608). Essential for pericellular collagenolysis and modeling of skeletal and extraskeletal connective tissues during development (By similarity). Activates progelatinase A/MMP2, 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:20837484). Acts as a regulator of Notch signaling by mediating cleavage and inhibition of DLL1 (PubMed:21572390). Cleaves ADGRB1 to release vasculostatin-40 which inhibits angiogenesis (PubMed:22330140). 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.

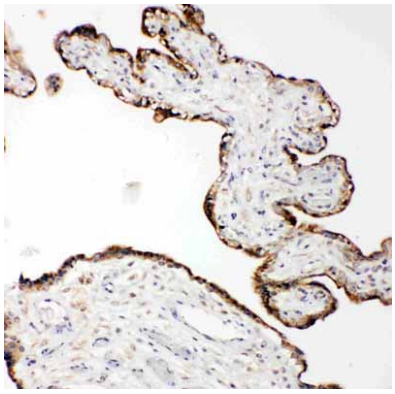
Background

Matrix metalloproteinase-14, also called MT-MMP 1, is an enzyme that in humans is encoded by the MMP14 gene. The protein encoded by this gene is a member of the membrane-type MMP subfamily. This gene is mapped to 14q11.2. 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. This gene may be involved in actin cytoskeleton reorganization by cleaving PTK7. It acts as a positive regulator of cell growth and migration via activation of MMP15.

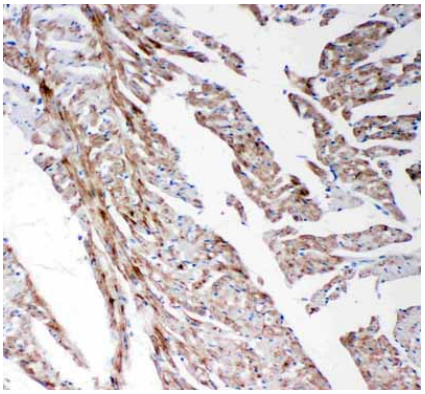
Images

Anti-MMP14 antibody, ABO11457, IHC(P)IHC(P): Human Intestinal Cancer Tissue

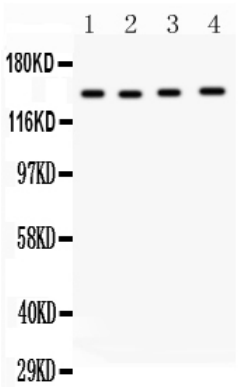




Anti-MMP14 antibody, ABO11457, IHC(P)IHC(P): Human Placenta Tissue



Anti-MMP14 antibody, ABO11457, IHC(P)IHC(P): Rat Cardiac Muscle Tissue



Anti-MMP14 antibody, ABO11457, Western blottingAll lanes: Anti MMP14 (ABO11457) at 0.5ug/mlLane 1: Rat Spleen Tissue Lysate at 50ugLane 2: Human Placenta Tissue Lysate at 50ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: A549 Whole Cell Lysate at 40ugPredicted bind size: 66KDObserved bind size: 150KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.