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Anti-MMP-14 Antibody
Catalog # ABO11974

Specification

Anti-MMP-14 Antibody - Product Information

Application	**WB**
Primary Accession	P50281
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Matrix metalloproteinase-14(MMP14) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MMP-14 Antibody - 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 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

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. .

Protein Name
Matrix metalloproteinase-14

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human MMP14 (557-582aa

LAVFFFRRHGTPRRLLYCQRSLLDKV), 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.

Anti-MMP-14 Antibody - 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.

Anti-MMP-14 Antibody - Protocols

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

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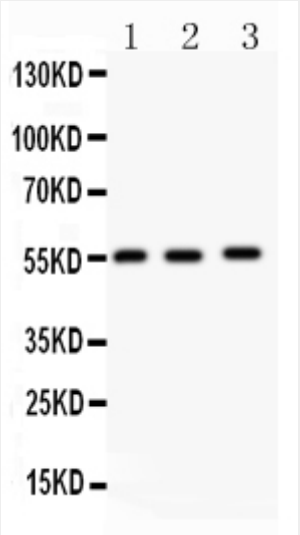
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MMP-14 Antibody - Images



Anti- MMP14 Picoband antibody, ABO11974, Western blottingAll lanes: Anti MMP14 (ABO11974) at 0.5ug/mlLane 1: Human Placenta Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: U87 Whole Cell Lysate at 40ugPredicted bind size: 55KDObserved bind size: 55KD

Anti-MMP-14 Antibody - 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.