

Product Name: KD-Validated Matrix Metallopeptidase 14 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01501

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 65.9kDa

Antigen Information

Gene Name	MMP14
Alternative Names	MMP14; Matrix Metallopeptidase 14; MT1-MMP; Matrix Metallopeptidase 14 (Membrane-Inserted); Membrane-Type-1 Matrix Metalloproteinase; Membrane Type 1 Metalloprotease; Matrix Metalloproteinase-14; EC 3.4.24.80; MT-MMP 1; MMP-14; MMP-X1; MT1MMP; MTMMP1; Matrix Metalloproteinase 14 (Membrane-Inserted); Membrane Type 1-Matrix Metalloproteinase; Membrane-Type Matrix Metalloproteinase 1; EC 3.4.24; MT-MMP; WNCNRS
Gene ID	4323.0
SwissProt ID	P50281
Immunogen	A synthesized peptide derived from human MMP14

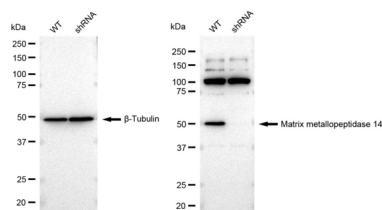
Background

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 MMP's are secreted as inactive proproteins 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]

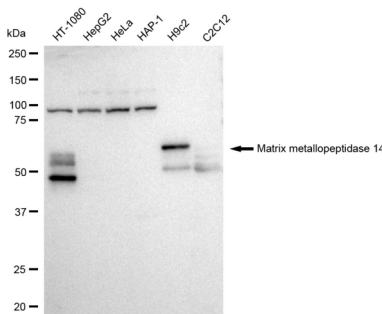
Research Area

Cardiovascular,Signal Transduction,Cancer,Cell Biology,Metabolism,Neuroscience

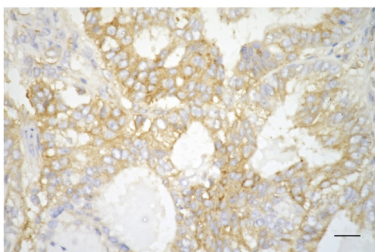
Image Data



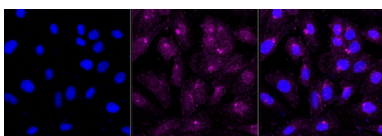
Western blotting analysis using matrix metalloproteinase 14 antibody (KVA01501). Matrix metalloproteinase 14 expression in wild type (WT) and matrix metalloproteinase 14 (MMP14) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with matrix metalloproteinase 14 antibody (KVA01501, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



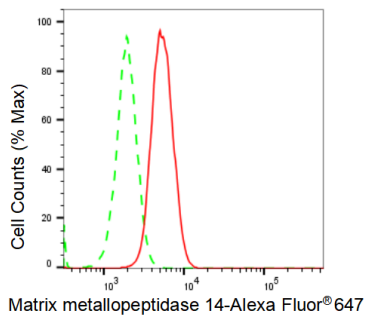
Western blotting analysis using Matrix metalloproteinase 14 antibody (KVA01501). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Matrix metalloproteinase 14 antibody (KVA01501, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human endometrial carcinoma using matrix metalloproteinase 14 antibody (KVA01501, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of H9C2 cells with Matrix metalloproteinase 14 antibody (KVA01501, 1:1,000). Nuclei were stained blue with DAPI; Matrix metalloproteinase 14 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Flow cytometric analysis of Matrix metalloproteinase 14 expression in H9c2 cells using Matrix metalloproteinase 14 antibody (KVA01501, 1:2,000). Green, isotype control; red, Matrix metalloproteinase 14.