ARG57921
anti-MMP14 / MT1-MMP antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes MMP14 / MT1-MMP
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Bov, Pig
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MMP14 / MT1-MMP
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 145-174 (N-terminus) of Human MMP14.
Conjugation	Un-conjugated
Alternate Names	MT1MMP; MT-MMP 1; Membrane-type matrix metalloproteinase 1; MT1-MMP; Membrane-type-1 matrix metalloproteinase; MT-MMP; EC 3.4.24.80; MMP-X1; MMP-14; Matrix metalloproteinase-14; WNCHRS; MTMMP1

Application Instructions

Application table

Application	Dilution
FACS	1:10 - 1:50
IHC-P	1:50 - 1:100
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control: NCI-H292

Properties

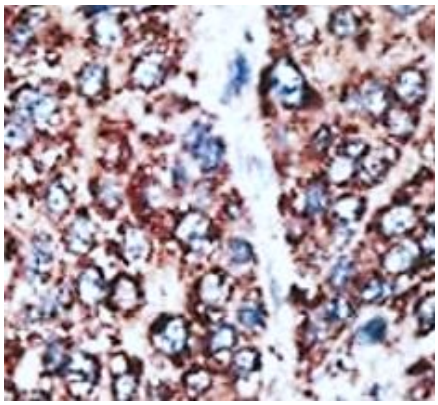
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

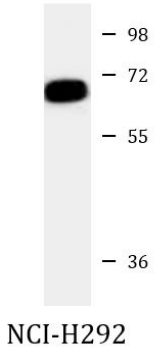
Gene Symbol	MMP14
Gene Full Name	matrix metallopeptidase 14 (membrane-inserted)
Background	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, 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]
Function	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. Involved in the formation of the fibrovascular tissues in association with pro-MMP2. [UniProt]
Calculated Mw	66 kDa
PTM	The precursor is cleaved by a furin endopeptidase. Tyrosine phosphorylated by PKDCC/VLK. [UniProt]
Cellular Localization	Membrane; Single-pass type I membrane protein. Melanosome. Cytoplasm Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Forms a complex with BST2 and localizes to the cytoplasm. [UniProt]

Images



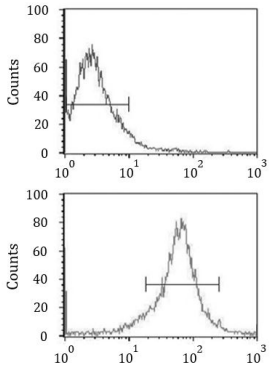
ARG57921 anti-MMP14 / MT1-MMP antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human hepatocarcinoma tissue stained with ARG57921 anti-MMP14 / MT1-MMP antibody.



ARG57921 anti-MMP14 / MT1-MMP antibody WB image

Western blot: 35 µg of NCI-H292 cell lysate stained with ARG57921 anti-MMP14 / MT1-MMP antibody.



ARG57921 anti-MMP14 / MT1-MMP antibody FACS image

Flow Cytometry: MCF7 cells stained with ARG57921 anti-MMP14 / MT1-MMP antibody (bottom histogram) or without primary antibody as control (top histogram), followed by incubation with FITC labelled secondary antibody.