ARG82633
Human MMP14 / MT1-MMP Assay Kit

Package: 96 wells
Store at: -20°C

Summary

Product Description	ARG82633 Human MMP14 / MT1-MMP Assay Kit is a detection kit for the quantification of Human MMP14 in cell and tissue lysates.
Tested Reactivity	Hu
Tested Application	FuncSt
Specificity	Measures endogenous active MMP14 (naturally occurring).
Target Name	MMP14 / MT1-MMP
Conjugation Note	Read at 405 nm.
Sensitivity	500 pg/ml for 2 hours incubation 100 pg/ml for 5 hours incubation
Sample Type	Cell and tissue lysates
Standard Range	100 - 16000 pg/ml
Sample Volume	100 µl
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

Assay Time	Overnight

Properties

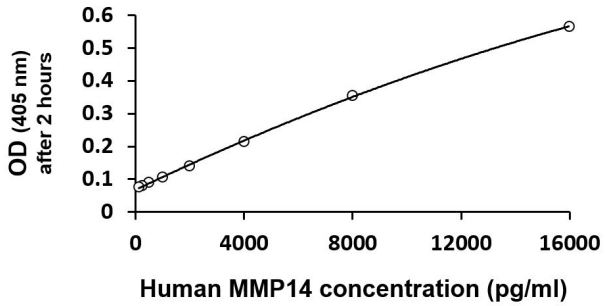
Form	96 well
Storage instruction	Store the kit at -20°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory 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

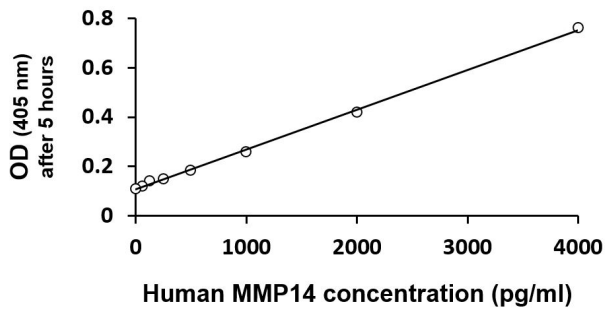
	are expressed at the cell surface rather than secreted. This protein activates MMP2 protein, and this activity may be involved in tumor invasion. [provided by RefSeq, Jul 2008]
Function	Seems to specifically activate progelatinase A. May thus trigger invasion by tumor cells by activating progelatinase 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]
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



ARG82633 Human MMP14 / MT1-MMP Assay Kit typical data demonstration image

ARG82633 Human MMP14 / MT1-MMP Assay Kit results of a typical data with optical density reading at 405 nm (after 2 hours incubation).



ARG82633 Human MMP14 / MT1-MMP Assay Kit typical data demonstration image

ARG82633 Human MMP14 / MT1-MMP Assay Kit results of a typical data with optical density reading at 405 nm (after 5 hours incubation).