Best Tools for immunology Research

Total MMP-14 Cell-Based Colorimetric ELISA Kit

Catalog No :	KA3326C
Reactivity :	Human;Mouse;Rat
Applications :	ELISA
Gene Name :	MMP14
Human Gene Id :	4323
Human Swiss Prot No :	P50281
Mouse Swiss Prot No :	P53690
Rat Swiss Prot No :	Q10739
Storage Stability :	2-8°C/6 months
Detection Method :	Colorimetric

Background : catalytic activity:Endopeptidase activity. Activates progelatinase A by cleavage of the propeptide at 37-Asn-|-Leu-38. Other bonds hydrolyzed include 35-Gly-|-Ile-36 in the propeptide of collagenase 3, and 341-Asn-|-Phe-342, 441-Asp-|-Leu-442 and 354-Gln-|-Thr-355 in the aggrecan interglobular domain.,cofactor:Binds 1 zinc ion per subunit.,cofactor:Calcium.,domain:The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.,function:Seems to specifically activate progelatinase A. May thus trigger invasion by tumor cells by activating progelatinase A on the tumor cell surface.,PTM:The precursor is cleaved by a furin endopeptidase.,similarity:Belongs to the peptidase M10A family.,similarity:Contains 4 hemopexin-like domains.,subcellular location:Identified by mass spectrometry in melanosome fractions from stage I to stage IV.,tissue specificity:In stromal cells of colon, breast, and head and neck.,

Function : skeletal system development, ossification, angiogenesis, ovarian follicle development, blood vessel development,response to hypoxia, morphogenesis of a branching structure, endothelial cell proliferation, vasculature development,regulation of cell-matrix adhesion, negative regulation of cell-matrix adhesion, reproductive developmental process,proteolysis, cell motion, response

	to oxidative stress, negative regulation of cell adhesion, sex differentiation, cell proliferation, glial cell migration, gonad development, female gonad development, response to mechanical stimulus,response to abiotic stimulus, response to endogenous stimulus, response to hormone stimulus, response to organic substance, regulation of cell-substrate adhesion, negative regulation of cell-substrate adhesion, cell migration, protein processing, ovulation cycle process, regulation of cell adhesion, respiratory tube dev
Subcellular Location :	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.
Expression :	Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors.

Products Images