

Recombinant Human Matrix metalloproteinase-14

#R00492

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -20 to -70 °C as supplied.
- 3 months, -20 to -70 °C under sterile conditions after opening.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

As the first member of membrane type (MT) MMPs, MMP-14, also known as MT1-MMP, plays an important role in extracellular matrix (ECM) remodeling by being able to degrade type I collagen, activate pro-MMP-2 and process cell adhesion molecules such as CD44 and integrin alpha V. MMP-14 is therefore a key enzyme in many physiological and pathological processes such as angiogenesis and tumor invasion. Structurally, MMP-14 consists of the following domains: a pro domain containing the furin cleavage site, a catalytic domain containing the zinc-binding site, a hinge region, a hemopexin-like domain, a transmembrane domain, and a cytoplasmic tail. Recombinant Human MMP-14 consists of the pro and catalytic domains, which can be activated by treatment with furin as described in Activity Assay Protocol.

AA Sequence

ALASLGSAQSSSFSPPEAWLQQYGYLPPGDLRTHTQR
SPQSLSAIAAMQKFYGLQVTGKADADTMKAMRRPR
CGVPDKFGAEIKANVRRKRYAIQGLKQWQHNEITFCIQ
NYTPKVGEYATYEAIRKAFRVWESATPLRFREVPYAYI
REGHEKQADIMIFFAEGFHGDSTPFDGEGGFLAHAYF
PGPNIGGDTHFDSAEPWTVRNEDLNGNDIFLVAVHEL
GHALGLEHSSDPSAIMAPFYQWMDTENFVLPDDDR
RGIQQLYG

Product Specification

Synonyms	MMP-X1, MT-MMP 1, MT1-MMP
Accession	P50281
GeneID	4323
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 29.6 kDa, a single non-glycosylated polypeptide chain containing 264 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Bioassay data are not available
Physical Appearance	Sterile colorless liquid.
Formulation	Supplied as a 0.2 µm filtered solution in 20 mM Tris-HCl, pH 7.4, 300 mM NaCl, 3 mM

	CaCl ₂ , 10 μM ZnCl ₂ , with 30 % glycerol.
Endotoxin	Less than 1 EU/μg of rHuMMP-14 as determined by LAL method.
