

MMP-14, Active, Human Recombinant

CATALOG #: 8009-10 10 µg
8009-50 50 µg

ALTERNATIVE NAMES: Matrix metalloproteinase-14, MT1-MMP

SOURCE: *E. coli*

FORM: Lyophilized powder

FORMULATION: Lyophilized from propriety buffer

RECONSTITUTION: Reconstitute with dH₂O

PURITY: ≥ 90% by SDS-PAGE

MOL. WT.: ~ 24.0 kDa (112-318 aa)

SPECIFIC ACTIVITY: > 450 mU/mg

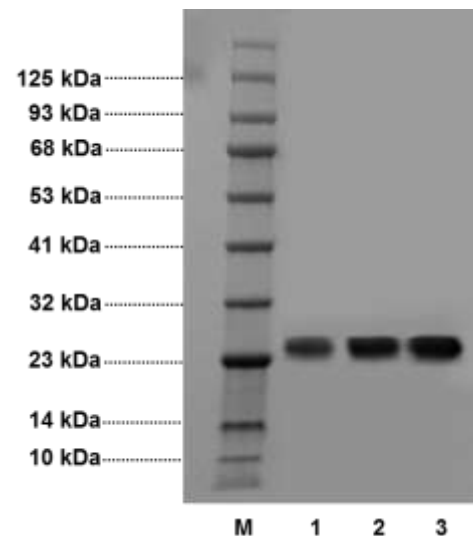
UNIT DEFINITION: One unit is defined as the amount of enzyme that hydrolyzes 1 µmol of Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH₂ per min. at 37°C, pH 7.5.

STORAGE CONDITIONS: Store at -20°C. Stable for at least 1 year as supplied. After reconstitution aliquot and store up to 1 month at -20°C. Avoid repeated freeze and thaw cycles.

BACKGROUND: The Matrix metalloproteinase-14 (MMP-14) belongs to a family of zinc-dependent endopeptidases. The ability of MMP-14 to degrade type I collagen, and activate pro-MMP-2 and pro-MMP-9 makes it a key enzyme in many physiological and pathological processes such as angiogenesis and tumor invasion. MMP-14 is structurally a multi-domain metalloenzyme, composed of a prodomain, a metal-binding catalytic domain, a hinge region, a hemopexin-like domain, a transmembrane domain, and a cytoplasmic tail. The catalytic, and hinge domains of MT1-MMP were expressed in *Escherichia coli* and the active form was generated by successive autoproteolysis of the N- and C-terminal sites during refolding.

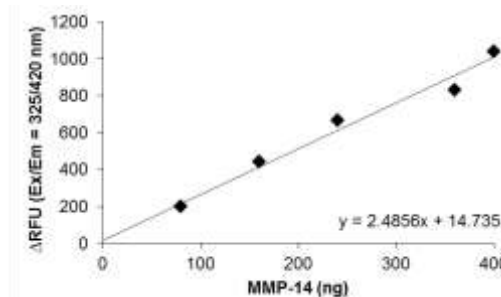
APPLICATIONS: Recombinant MMP-14 can be used in inhibitor screening assays, activity studies, selectivity profiling, western blotting, ELISA, and numerous such applications

For Research Use Only! Not to be used in humans.



SDS-PAGE (4-20%) of MMP-14:

M: Protein Marker
1: MMP-14 (5 µg)
2: MMP-14 (10 µg)
3: MMP-14 (15 µg)



Determination of catalytic activity of purified MMP-14 by measuring its ability to hydrolyze Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH₂ at 37°C, pH 7.5.

RELATED PRODUCTS:

- MMP-1, Human Recombinant (Cat # 7781-10, -50, -1000)
- MMP-1, Human CellExp™, Human Recombinant (Cat # 7244-10)
- MMP-2, Human Recombinant (Cat # 7782-10, -50, -1000)
- MMP-2, Human CellExp™, Human Recombinant (Cat # 7245-10)
- MMP-3, Human Recombinant (Cat # 7783-10, -50, -1000)
- MMP-9, Active, human recombinant (Cat # 7867-500, 1000)
- MMP-9, Human Recombinant (Cat # 7789-10, -50, -1000)
- MMP-9, Human CellExp™, human recombinant (Cat # 7246-10, -50)