

MMP-9, Active, human recombinant

CATALOG #: 7867-500 500 units
7867-1000 1000 units

SYNONYMS: Matrix Metalloproteinase-9, Gelatinase B, 92 kDa Type IV Collagenase, MMP9, CLG4B, GELB, MANDP2

SOURCE: *E. coli*

MOL. WT.: 39 kDa (aa 107-457 + NT His Tag)

PURITY: >95% by SDS-PAGE

FORM: Lyophilized powder

FORMULATION: Lyophilized from a proprietary buffer

STORAGE CONDITIONS: Stable for over 6 months at -20°C.

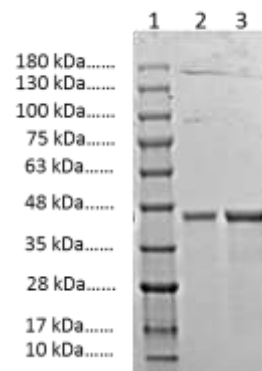
RECONSTITUTION: Reconstitute with pre-chilled 30% Glycerol solution (in dH₂O) to 10 U/μl and incubate on ice until it completely dissolves. Aliquot and store the reconstituted MMP-9 at -20°C. Stable for 2 months after reconstitution.

DESCRIPTION: Matrix metalloproteinase 9 (MMP-9), also known as 92 kDa type IV collagenase, 92 kDa gelatinase or gelatinase B, is the mostly studied MMP, due to its fundamental role in cancer biology, autoimmune disease, and other conditions. This enzyme degrades various substrates including gelatin, collagen types IV and V, and elastin. MMP-9 is structurally a multi-domain metalloenzyme, composed of a prodomain, a catalytic domain, a gelatin binding domain, a metal-binding domain, and a carboxyl terminal hemopexin like domain. This active human MMP-9 is composed of the catalytic domain, a gelatin binding domain, and a metal binding domain (AA 107-457). The protein was expressed in *E. coli* and purified and refolded using proprietary techniques.

BIOLOGICAL ACTIVITY: The activity was determined using fluorogenic substrate Mca-PLGL-Dpa-AR-NH₂. The specific activity is > 70 U/μg.

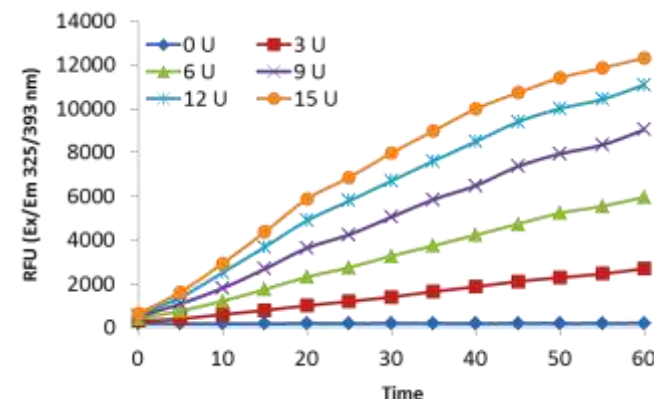
UNIT ACTIVITY: One unit (U) of the activity is defined as the amount of enzyme that releases 1 pmole of Mca from Mca-PLGL-Dpa-AR-NH₂ per min. at 37°C.

FOR RESEARCH USE ONLY! Not to be used on humans.



SDS-PAGE (4-20%) of Active Recombinant MMP-9:

1: Protein Marker
2: rhMMP-9 (1.8 μg)
3: rhMMP-9 (3.6 μg)



Assay of the MMP-9 activity: Active MMP-9 was diluted in 1X reaction buffer (50 mM Tris, pH 7.5, 150 mM NaCl, 5 mM CaCl₂, 20 μM ZnCl₂) to 2 U/μl, and the indicated amount of MMP-9 were incubated with substrate (Mca-PLGL-Dpa-AR-NH₂) in a 100 μl reaction. The fluorescence (Ex/Em 325/393 nm) was monitored over a 60 min time period.

RELATED PRODUCTS:

- MMP-9, Human Recombinant (**Cat. No. 7789-10, -50, -1000**)
- MMP-9, Human CellExp™, human recombinant (**Cat. No. 7246-10, -50**)
- MMP-9 Antibody (**Cat. No. 3529-100**)
- MMP-9 Antibody (**Cat. No. 3969-100**)
- MMP-9 Inhibitor (**Cat. No. 1981-500**)
- MMP-1, Human CellExp™, Human Recombinant (**Cat. No. 7244-10**)
- MMP-2, Human CellExp™, Human Recombinant (**Cat. No. 7245-10**)
- MMP-1, Human Recombinant (**Cat. No. 7781-10, -50, -1000**)
- MMP-2, Human Recombinant (**Cat. No. 7782-10, -50, -1000**)
- MMP-3, Human Recombinant (**Cat. No. 7783-10, -50, -1000**)