

# MMP-9, Active, Human Recombinant

CATALOG NO: P1567-10 10 µg  
P1567-50 50 µg

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

MOL. WT. 41.3 kDa (N-terminal His-Tag)

SOURCE: *E. coli*

PURITY: >95% SDS - PAGE

AMINO ACID SEQUENCE: aa 107-457

FORM: Lyophilized

FORMULATION: Lyophilized from a proprietary buffer

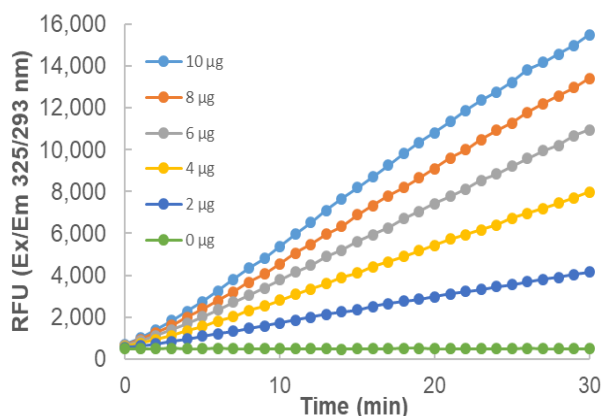
RECONSTITUTION: Reconstitute with pre-chilled 30% Glycerol/H<sub>2</sub>O solution to 0.1 µg/µl and incubate on ice until it completely dissolves. Aliquot and store the reconstituted MMP-9 at -20°C. Stable for 2 months after reconstitution.

SPECIFIC ACTIVITY: The activity was determined using fluorogenic substrate Mca-PLGL-Dpa-AR-NH<sub>2</sub>. The specific activity is ≥ 200 µU/µg.

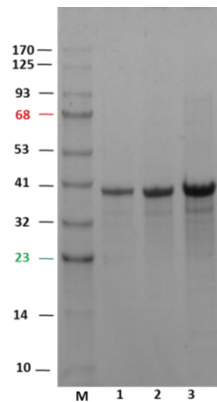
UNIT DEFINITION: One unit (U) of the activity is defined as the amount of enzyme that releases 1 µmole of Mca from Mca-PLGL-Dpa-AR-NH<sub>2</sub> per min. at 37 °C.

STORAGE CONDITIONS: Store at -20°C. Once reconstituted, aliquot and store at -20°C. Avoid repeated freezing and thawing cycles.

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 pro-domain, 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.



**Specific activity of the Recombinant MMP-9:** MMP-9 was reconstituted in 30% Glycerol/H<sub>2</sub>O solution and the indicated amount of MMP-9 were incubated with substrate (Mca-PLGL-Dpa-AR-NH<sub>2</sub>) in a 100 µl Assay Buffer using BioVision's MMP-9 Inhibitor Screening Kit (Cat# K844). The fluorescence (Ex/Em 325/393 nm) was monitored over a 30 min time period.



**SDS-PAGE (4-20%) of Recombinant MMP-9:** Recombinant protein loaded under reducing conditions and stained with Coomassie Blue. Lane M-MW marker, Lane 1- 2 µg, Lane 2- 4 µg, Lane 3- 8 µg rhMMP-9.

**RELATED PRODUCTS:**

- MMP-9 Antibody (3529)
- MMP-9 Antibody (3969)
- MMP-9 Inhibitor (1981)
- MMP-9, Human CellExp™, human recombinant (7246)
- MMP-9, Inhibitor Screening Kit (K844)

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