

## MMP-2 Human

**Description:** MMP-2 Human Recombinant produced in HEK293 cells is a proform of the Human MMP-2 (Ala30-Cys660) and fused with a ployhistide tag at the C-terminus, having an Mw of 71kDa. MMP-2 is purified by proprietary chromatographic techniques.

**Catalog #:** ENPS-107

For research use only.

**Synonyms:** 72 kDa type IV collagenase, 72 kDa gelatinase, Gelatinase A, Matrix metalloproteinase-2, MMP-2, TBE-1, MMP2, CLG4A, CLG4, MONA, MMP-II.

**Source:** HEK293 cells.

**Physical Appearance:** The MMP-2 is supplied as a sterile Filtered colorless solution.

**Purity:** Greater than 95% as determined by SDS-PAGE.

**Formulation:**

The MMP-2 is supplied as a 0.2

**Stability:**

Store MMP-2 at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Introduction:**

Matrix metalloproteinase-2 (MMP-2) is a type IV collagenase, which is involved in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. MMP-2 contains a number of distinct domains: a prodomain that is cleaved upon activation; a catalytic domain containing the zinc binding site; a fibronectin like domain believed to have a role in substrate targeting; and a carboxyl terminal (hemopexin like) domain containing 2 N-linked glycosylation. The MMP-2 can degrade an extensive array of substrates including type IV, V, VII and X collagens as well as gelatin type I. In addition, MMP-2 interacts with THBS2, TIMP2, Thrombospondin 1, CCL7 and TIMP4. MMP-2 autocatalytic cleavage in the C-terminal generates the anti-angiogenic peptide, PEX. This process seems to be made possible by binding integrin  $\alpha_5\beta_3$ . Defects in the MMP-2 are the cause of Torg-Winchester syndrome (TWS), aka multicentric osteolysis nodulosis and arthropathy (MONA).

**Biological Activity:**

The activity was measured by its ability to cleave the colorimetric peptide substrate, Mca-PLGL-DpaAR-NH<sub>2</sub>. The specific activity is > 1,000 pmoles/min/

**References:**

Title: MMP-2 regulates human platelet activation by interacting with integrin  $\alpha_5\beta_3$ . Publication: To cite this article: Choi W-S, Jeon O-H, Kim H-H, Kim D-S. MMP-2 regulates human platelet activation by interacting with integrin  $\alpha_5\beta_3$ . J Thromb Haemost 2008; 6: 51723. Link: <http://onlinelibrary.wiley.com/doi/10.1111/j.1538-7836.2007.02871.x/pdf>

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