

## 32-2547: MMP2 Recombinant Protein

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

### Description

Source : Escherichia Coli. MMP2 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 576 amino acids (110-660a.a) and having a molecular mass of 64.7kDa. MMP2 is fused to a 25 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. 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 $\alpha$ v/ $\beta$ 3. Defects in the MMP-2 are the cause of Torg-Winchester syndrome (TWS), aka multicentric osteolysis nodulosis and arthropathy (MONA).

### Product Info

**Amount :** 10  $\mu$ g

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

**Content :** The MMP2 solution (0.25mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl and 10% glycerol.

**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MGSEFYNFFP RKPWKDNQI TYRIIGYTPD LDPETVDDAF ARAFQVWSDV TPLRFSRIHD GEADIMINFG RWEHGDGYPF DGKDGLLAHA FAPGTGVGGD SHFDDDELWT LGEGQVVRVK YGNADGEYCK FPFLFNGKEY NSCTDTGRSD GFLWCSTTYN FEKDGKYGFC PHEALFTMGG NAEGQPCKFP FRFQGTSYDS CTTEGRTDGY RWC GTTEDYD RDKKYGFCPE TAMSTVGGNS EGAPCVFPFT FLGNKYESCT SAGRSDGKMW CATTANYDDD RKWGFCDPQG YSLFLVAAHE FGHAMGLEHS QDPGALMAPI YTYTKNFRLS QDDIKGIQEL YGASPDIDLG TGPTPTLGPV TPEICKQDIV FDGIAQIRGE IFFFKDRFIW RTVTPRDKPM GPLLVATFWP ELPEKIDAVY EAPQEEKAVF FAGNEYWIYS ASTLERGYPK PLTSLGLPPD VQRVDAAFNW SKNKTYIFA GDKFWRYNEV KKKMDPGFPG LIADAWNAP DNLDVVDLQ GGGHSYFFKG AYYLKLENQS LKSVKFGSIK SDWLGC.

