

**HUMAN MMP2 PROTEIN, HIS TAG****Cat.#:** 11704**Product Name:** Human MMP2 Protein**Size:** 10 µg, 50 µg and 100 µg**Synonyms:** CLG4;CLG4A;MMP-2;MMP-II;MONA;TBE-1**Target:** MMP2**UNIPROT ID:** P08253**Description:** Recombinant human MMP2 protein with C-terminal 6xHis tag

**Background:** This gene is a member of the matrix metalloproteinase (MMP) gene family, that are zinc-dependent enzymes capable of cleaving components of the extracellular matrix and molecules involved in signal transduction. The protein encoded by this gene is a gelatinase A, type IV collagenase, that contains three fibronectin type II repeats in its catalytic site that allow binding of denatured type IV and V collagen and elastin. Unlike most MMP family members, activation of this protein can occur on the cell membrane. This enzyme can be activated extracellularly by proteases, or, intracellularly by its S-glutathiolation with no requirement for proteolytical removal of the pro-domain. This protein is thought to be involved in multiple pathways including roles in the nervous system, endometrial menstrual breakdown, regulation of vascularization, and metastasis. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2014]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 71.8 kDa after removal of the signal peptide. The apparent molecular mass of MMP2-His is approximately 55-70 kDa due to glycosylation.

**Molecular Characterization:** MMP2(Ala30-Cys660) 6xHis tag

**Purity:** The purity of the protein is greater than 85% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

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Figure 1. Human MMP2 Protein, His Tag on SDS-PAGE under reducing condition.