# Recombinant Human MMP19 protein (His Tag)

## Catalog Number: PDEH101035

Note: Centrifuge before opening to ensure complete recovery of vial contents.

| Description    |  |
|----------------|--|
| Species        | Human  |
| Source         | E.coli-derived Human MMP19 protein Leu101-Arg450, with an N-terminal His & C-            |
|                | terminal His   |
| Calculated MW  | 38.4 kDa   |
| Observed MW    | 41 kDa   |
| Accession      | Q99542   |
| Bio-activity   | Not validated for activity   |
| Properties     |  |
| Purity         | > 90% as determined by reducing SDS-PAGE.  |
| Endotoxin      | < 10 EU/mg of the protein as determined by the LAL method                                |
| Storage        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 |
|                | °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of      |
|                | reconstituted samples are stable at $< -20^{\circ}C$ for 3 months.                       |
| Shipping       | This product is provided as lyophilized powder which is shipped with ice packs.          |
| Formulation    | Lyophilized from a 0.2 $\mu m$ filtered solution in PBS with 5% Trehalose and 5%         |
|                | Mannitol.  |
| Reconstitution | It is recommended that sterile water be added to the vial to prepare a stock solution of |
|                | 0.5 mg/mL. Concentration is measured by UV-Vis.  |

#### Data



SDS-PAGE analysis of Human MMP19 proteins, 2µg/lane of Recombinant Human MMP19 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 41 KD.

## Background

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MMP-19 (Matrix metalloprotease 19, also MMP-18 and MMP RASI) is a 55-59 kDa member of the peptidase M10A family of enzymes. It is widely expressed, being secreted by stratum basale keratinocytes, smooth muscle cells, epiphysial cartilage chondrocytes and monocytes/macrophages. MMP-19 has multiple substrates, including components of the basement membrane (type IV collagen, laminin, nidogen), fibronectin, aggrecan plus COMP, and IGFBP3, this latter cleavage resulting in the release of active IGF-I. Studies involving MMP-19 demonstrate an antiangiogenic function. This is attributable to the processing of plasminogen, generating angiostatin-like molecules, and the creation of an environment that promotes the ECM retention of soluble VEGF.