For Research Use Only

Recombinant Human MMP-1 protein (His Tag)

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Catalog Number: Eg0527

Basic Information

Species: Human

Purity: >90 %, SDS-PAGE

Tag: His Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/ μ g protein, LAL method

Source:
HEK293-derived Human MMP-1 protein Phe20-Asn469 (Accession# P03956) with a His tag at the C-terminus.

GeneID:
4312

Accession:
P03956

Predicted Molecular Mass:
55.9 kDa

SDS-PAGE:
55-65 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Matrix metalloproteinase 1 (MMP1), which is also known as interstitial collagenase and fibroblast collagenase is a member of the matrix metalloproteinases (MMPs) family . Proteins in this family mainly participate in the breakdown of extracellular matrix both in normal physiological processes and disease processes. Several factors contribute to the expression of MMP1, including endogenous factors, such as polymorphisms and epigenetic regulation in the promoter region of MMP1, as well as exogenous factors, such as the tumor microenvironment. A variety of MMP1 promoter genotypic polymorphisms have been reported in various ethnic populations, and their contributions to different disease risks have been explored. In the tumor microenvironment, a variety of inflammatory factors, including interleukin-8 (IL-8), IL-1 β and tumor necrosis factor- α (TNF- α), have been reported to induce MMP1 expression in cancer cells.

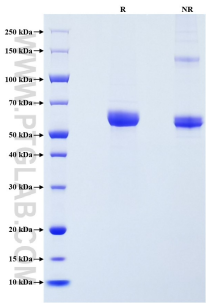
References

1. Shen CJ. et al. (2017) PLoS One. 12(3):e0174487.
2. Chen Y. et al. (2019) Int J Oncol. 55(1):142-156.
3. Young-Min SA. et al. (2001) Ann Rheum Dis. 60(9):846-51.
4. Murawaki Y. et al. (1999) J Gastroenterol Hepatol. 14(2):138-45.

Synonyms

MMP1, 22 kDa interstitial collagenase, 27 kDa interstitial collagenase, CLG, CLGN

Selected Validation Data



Purity of Recombinant Human MMP-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.