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Recombinant Human Matrix Metalloproteinase 1 (MMP1) -- Western Blotting Control

Catalog No.	Size	Species	Protein Accession No.
RB-15-0006P-WBC	100 µL (20 lanes)	Human	AAH13875

Synonyms

Matrix metalloproteinase-1; MMP1; Interstitial collagenase.

Description

MMP-1 is a member of the large family of matrix metalloproteinase (MMP) that degrades substrates, such as gelatin, nidogen, collagen type 3, collagen type 4, laminin-1, proteoglycans, elastin, etc. Most MMP proteins are activated after cleaved by extracellular proteinases. The matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological pathway: embryonic development, reproduction, tissue remodeling. MMP also involves in disease processes, such as arthritis and metastasis.

Preparation

The full-length of human MMP-1 gene was cloned and expressed in *Escherichia coli*. The recombinant protein has an N-terminal 6×histidine tag and was purified by immobilized metal ion affinity chromatography (IMAC).

Source

Recombinant histidine-tagged protein, purified from *E. coli*.

Predicted Molecular Mass

~54.7 kDa with the 6×histidine tag.

Formulation

Liquid. Supplied in 1× SDS Loading Buffer (60 mM Tris-HCl, pH 6.8, 2% SDS, 10% glycerol, 5% 2-mercaptoethanol, 0.002% bromphenol blue).

Storage

The protein is stable at -20 °C freezer.

Purity

>95%, determined by SDS-PAGE and stained with Coomassie blue.

Applications

Before use, heat the WBC control at 95 °C for 5 minutes. Spin down the sample and load 5 µL per lane onto SDS-PAGE gel.

References

1. Tolboom, TC, et al. (2002) Invasive properties of fibroblast-like synoviocytes: correlation with growth characteristics and expression of MMP-1, MMP-3, and MMP-10. *Annals of the Rheumatic Diseases* 61(11): 975-980.
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3. Tower, GB, et al. (2003) The 2G single nucleotide polymorphism (SNP) in the MMP-1 promoter contributes to high levels of MMP-1 transcription in MCF-7/ADR breast cancer cells. *Breast Cancer Research and Treatment* 82(2): 75-82.
4. Stricker, TP, et al. (2001). Structural analysis of the alpha(2) integrin I domain/procollagenase-1 (matrix metalloproteinase-1) interaction. *J. Biol. Chem.* 276 (31): 29375-81.
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