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32-2546: MMP 2 HEK 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 : HEK293 cells. MMP-2 Human Recombinant produced in HEK293 cells is a proform of the Human MMP-2 (Ala30-Cys660) and fused with a ployhistide tag at the C-terminus, having an Mw of 71kDa. MMP-2 is 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 integrinv/beta3. Defects in the MMP-2 are the cause of Torg-Winchester syndrome (TWS), aka multicentric osteolysis nodulosis and arthropathy (MONA).

Product Info

Amount :	10 µg
Purification :	Greater than 95% as determined by SDS-PAGE.
Content :	The MMP-2 is supplied as a 0.2µm filtered solution in 20mM Tris-HCl, 150mM NaCl and 0.05% Brij 35, pH 7.4.
Storage condition :	Store MMP-2 at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time.Avoid multiple freeze-thaw cycles.

Application Note

The activity was measured by its ability to cleave fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2., The specific activity is > 1,000 pmoles/min/Ã□Âµg.Recombinant Human MMP-2 protein pro form needs to be activated with p-aminophenylmercuric acetate (APMA).Activation Protocol:1. Dilute MMP2 to 100Ã□Âµg/ml in the Assay Buffer: 50mM Tris, 10mM CaCl2, 150mM NaCl, 0.05% (w/v) and Brij 35, pH 7.5.2. Activate MMP2 by adding APMA to a final concentration of 1mM. and 100mM stock in DMSO.3. Incubate at 37Ã□Â°C for 1 hour.