Biotin Conjugated Anti-Human MMP-9 Antibody [PSH04-24] - Detector

HA722615B

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Molecular Wt:	Predicted band size: 78.5 kDa
Clone number:	PSH04-24

Description: MMP-9 (also referred to as gelatinase B, 92 kDa type IV collagenase, 92 kDa gelatinase, and type V collagenase) is secreted as a glycosylated proenzyme. Activation of the proenzyme involves proteolytic removal of the N-terminal pro region, resulting in the 82 kDa active enzyme. Active human MMP-9 shares 72% and 74% amino acid sequence identity with mouse and rat MMP-9, respectively. In addition to the zinc-binding site, the catalytic domain also contains three contiguous fibronectin type II homology units responsible for binding gelatin. A proline-rich hinge region links the catalytic domain to the C-terminal hemopexin-like domain. In vitro treatment of the proenzyme with 4-aminophenylmercuric acetate (APMA) produces not only the active enzyme but also a C-terminal truncated form with activity comparable to that of the active form. MMP-9 degrades components of the ECM with high specific activity for denatured collagens (gelatin). It can cleave native collagens of type III, IV, V, and XI, as well as Elastin, Nidogen-1, and Vitronectin. MMP-9 can also cleave a variety of chemokines and growth factors (e.g. IL-1 beta, CXCL8/IL-8, CXCL7, CXCL4, CXCL1, Latent TGF-beta, membrane bound TNF-alpha, VEGF, and FGF basic), Amyloid beta peptide, Substance P, and Myelin Basic Protein. This action can increase or decrease the biological activity of soluble factors and can also liberate them from association with the ECM. MMP-9 can also trigger signaling through various transmembrane proteins or inhibit signaling by inducing their shedding from the cell surface (e.g. CD44, E-Cadherin, Integrins, ICAM-1, and IL-2 R alpha).

Conjugate:	Biotin-conjugated
Immunogen:	Recombinant protein within Human MMP9 aa 20-707 (P14780).
Positive control:	Recombinant Human MMP9 protein (HA210698).
Subcellular location:	Secreted, extracellular space, extracellular matrix.
Database links:	SwissProt: P14780 Human
Recommended Dilutions:	
ELISA(Det)	Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH04-23] to Human MMP9 (Capture) (HA722106) and recombinant standard Human MMP9 protein (HA210698). The reference range value is 20.6-5,000 pg/mL.
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.
Purity:	Protein A affinity purified.

No Images

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Zhang H et al. MMP9 protects against LPS-induced inflammation in osteoblasts. Innate Immun. 2020 May
2. Nandi SS et al. MMP9 inhibition increases autophagic flux in chronic heart failure. Am J Physiol Heart Circ Physiol. 2020 Dec