

Monoclonal Anti-human HME-MMP12

Product reference: DDX0281-HRPO

Product reference: DDX0284

Description:

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes. HME/MMP-12, also called metalloelastase, is reported only in a few cells, including tissue macrophages and hypertrophic chondrocytes. MMP-12 is critical for invasion and destruction in pathologies such as aneurysm and emphysema. The predicted molecular mass of the HME proenzyme is 54 kDa. HME mRNA and protein were detected in human alveolar macrophages. Similar to murine macrophage metalloelastase, HME readily undergoes NH₂- and COOH-terminal processing to a mature 22 kDa form. Both recombinant expressed in *Escherichia Coli* and native HME derived from human alveolar macrophage-conditioned media degraded insoluble elastin. HME is a unique human metalloproteinase that displays elastolytic activity and is expressed in alveolar macrophages; MMP-12 mediates smoke-induced inflammation by releasing TNF α from macrophages, with subsequent endothelial activation, neutrophil influx, and proteolytic matrix breakdown caused by neutrophil-derived proteases. (Demedts IK et al, 2006; Thorax, 61:196-201)

Clones:	706F9.01 (detecting) DDX0281	701E4.03 (capture) DDX0284
Species:	mouse	mouse
Specificity:	human HME-MMP12	human HME-MMP12
Immunogen:	recombinant HME	recombinant HME
Species cross-reactivity:	nd	nd
Isotype:	IgG1	IgG1
Formulation/size:	100 μ g in 200 μ l PBS 50% glycerol 50 μ g in 100 μ l (To maintain RT before use)	100 μ g in 200 μ l Tris-NaCl pH 8 50 μ g in 100 μ l

**For DDX0284 recognition of the 54kDa form, a pre-treatment of the samples with DTT is required (Demedts IK et al, 2006; Thorax, 61:196-201)*

Purification: QMA Hyper D ion exchange chromatography

Available formats:

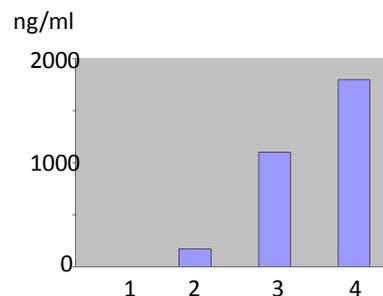
Reference N°		Format	Application tested
50 μ g	100 μ g		
DDX0284P-50	DDX0284P-100	purified	Capture, IP, WB
DDX0281P-50	DDX0281P-100	purified	IP, WB
DDX0281HRPO-50	DDX0281HRPO-100	HRPO	Detecting

Other clones available on request

Applications tested: ELISA

ELISA with 706F9.01/701E4.03 anti-HME

- 1= control
- 2= HME-transfected cells
- 3= CD34⁺ +GMCSF+TNF- α +IL4
- 4= patient serum of Langerhans histiocytosis



Usage recommendation:

*This monoclonal antibody may be used:

Capture: 3 μ g/ml in Carbonate buffer (pH 9,6)

Detection: 5 μ g/ml in PBS-BSA-tween

Positive standard: 1/200 = 10 ng/ml

*Optimal dilution should be determined by each laboratory for each application.

Aliquot storage conditions:

-20°C. KEEP CONTENTS STERILE: no preservative.

Purified antibodies: avoid repeated freeze/thaw cycles.

Coupled antibodies: glycerol protects from freezing.

Not for use in Humans. For research purpose only