DENDRITICS

Monoclonal Anti-human HME-MMP12

Product reference: DDX0281
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 TNFα 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 µg in 200 µl PBS 50% glycerol 50 µg in 100 µl	100 µg in 200 µl Tris-NaCl pH 8 50 µg in 100 µl

(To maintain RT before use)

****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:

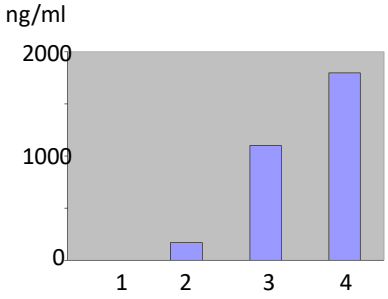
Reference N°		Format	Application tested
50 µg	**100 µg**		
DDX0284P-50	DDX0284P-100	Purified	Capture, IP, WB
DDX0281P-50	DDX0281P-100	Purified	IP, WB
DDX0281HRPO-50	DDX0281HRPO-100	HRPO	Detecting, ELISA
DDX0281B-50	DDX0281B-100	Biotin	Detecting, ELISA

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: 3µg/ml in Carbonate buffer (pH 9,6)
Detection: 5µg/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.**
<u>Purified</u> antibodies: avoid repeated freeze/thaw cycles.
<u>Coupled</u> antibodies: glycerol protects from freezing.

Not for use in Humans. For research purpose only