

# Lyophilized Mouse Monoclonal Antibody Matrix Metalloproteinase 10

**Product Code:** MEDCLA866

<b>Intended Use</b>	FOR RESEARCH USE ONLY.
<b>Specificity</b>	Human matrix metalloproteinase 10, also known as stromelysin-2.
<b>Clone</b>	5E4
<b>Ig Class</b>	IgG1
<b>Antigen Used for Immunizations</b>	Prokaryotic recombinant fusion protein corresponding to amino acids 342–476 of the human matrix metalloproteinase 10 molecule.
<b>Hybridoma Partner</b>	Mouse myeloma (p3-NS1-Ag4-1).
<b>Preparation</b>	Lyophilized tissue culture supernatant containing 15 mM sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
<b>Effective on Frozen Tissue</b>	Not evaluated.
<b>Effective on Paraffin Wax Embedded Tissue</b>	Yes (using the high temperature antigen unmasking technique: see overleaf).
<b>Recommendations on Use</b>	Immunohistochemistry: Typical working dilution 1:25–1:50. High temperature antigen unmasking technique. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique. Western Blotting: Not fully evaluated.
<b>Positive Controls</b>	Immunohistochemistry: Ulcerative colitis.
<b>Staining Pattern</b>	Cytoplasmic.
<b>Storage and Stability</b>	Store unopened lyophilized antibody at 4 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
<b>General Overview</b>	The matrix metalloproteinases (MMPs) are a family of closely related zinc-containing enzymes that are widely expressed during growth and development where they are involved in tissue remodelling via the degradation of various components of the extracellular matrix. They are multidomain proteins that are secreted as inactive precursors, which are activated by the cleavage of an N-terminal pro-peptide. MMPs have been classified into collagenases, gelatinases, membrane-type MMPs, matrilysins and stromelysins on the basis of a combination of in vitro substrate specificity, amino acid sequence homology, peptide domain structure and cellular location. MMP10 is also known as stromelysin-2 and has a wide range of substrates including proteoglycan, laminin, fibronectin, collagen IV, collagen IX and the telopeptides of other collagens.
<b>General References</b>	Bodey B, Bodey Jnr. B, Siegel S, et al.. <i>Anticancer Research</i> . 20: 4585–4590 (2000). Fortunato S J, Menon R and Lombardi S J. <i>Obstetrics &amp; Gynecology</i> . 94 (3): 435–440 (1999). Bord S, Horner A, Hembry R M, et al.. <i>Bone</i> . 23 (1): 7–12 (1998). Giambernardi T A, Grant G M, Taylor G P, et al.. <i>Matrix Biology</i> . 16 (8): 483–496 (1998). Vaalamo M, Karjalainen-Lindsberg M-L, Puolakkainen P, et al.. <i>American Journal of Pathology</i> . 152 (4): 1005–1014 (1998). Heppner K J, Matrisian L M, Jensen R A, et al.. <i>American Journal of Pathology</i> . 149 (1): 273–282 (1996). Conca W and Willmroth F. <i>Arthritis and Rheumatism</i> . 37 (6): 951–956 (1994). Saarialho-Kere U, Pentland A P, Birkedal-Hansen H, et al.. <i>Journal of Clinical Investigation</i> . 94: 79–88 (1994).