

**AF8810****Monoclonal Antibody to MMP-15 - Purified**

<b>Alternate names:</b>	MMP15, MT-MMP 2, MT2-MMP, MT2MMP, MTMMP2, Matrix metalloproteinase-15, Membrane-type matrix metalloproteinase 2, Membrane-type-2 matrix metalloproteinase, SMCP-2
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Background:</b>	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. However, the protein encoded by this gene is a member of the membrane-type MMP (MT-MMP) subfamily; each member of this subfamily contains a potential transmembrane domain suggesting that these proteins are expressed at the cell surface rather than secreted.
<b>Uniprot ID:</b>	<a href="#">O54732</a>
<b>NCBI:</b>	<a href="#">NP_032635.1</a>
<b>GeneID:</b>	<a href="#">17388</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Recommended Isotype Controls:</b>	AM03095PU-N
<b>Clone:</b>	162-22G5
<b>Immunogen:</b>	Oligopeptide of DTDNFQLPEDDLRG (residue 281-294) on Mouse membrane-type 2 matrix metalloproteinase (MT2-MMP).
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction. <b>Buffer System:</b> 0.1M Sodium Phosphate buffer, pH 7.0 <b>Stabilizers:</b> 0.5% protease free BSA
<b>Applications:</b>	<b>Western Blotting:</b> 5-10 µg/ml. <b>Immunohistochemistry on Paraffin Sections:</b> 2-20 µg/ml. Heat induced antigen retrieval with citrat buffer, pH 6.2 using a pressure cooker was preformed. Sections were blocking using a commercially available casein solution. Signal was generated using a commercially available polymer HRP detection system and DAB. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	The monoclonal 162-22G5 antibody specifically reacts with Mouse MT2-MMP and cross reacts with Human MT2-MMP.

- Storage:** Upon receipt, store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
- Product Citations:** **Originator or purchased from resellers:**
1. Ueno H, Nakamura H, Inoue M, Imai K, Noguchi M, Sato H, et al. Expression and tissue localization of membrane-types 1, 2, and 3 matrix metalloproteinases in human invasive breast carcinomas. *Cancer Res.* 1997 May 15;57(10):2055-60. PubMed PMID: 9158005.
  2. Nakamura H, Ueno H, Yamashita K, Shimada T, Yamamoto E, Noguchi M, et al. Enhanced production and activation of progelatinase A mediated by membrane-type 1 matrix metalloproteinase in human papillary thyroid carcinomas. *Cancer Res.* 1999 Jan 15;59(2):467-73. PubMed PMID: 9927064.
- General Readings:**
1. Bassi DE, Lopez De Cicco R, Cenna J, Litwin S, Cukierman E, Klein-Szanto AJ. PACE4 expression in mouse basal keratinocytes results in basement membrane disruption and acceleration of tumor progression. *Cancer Res.* 2005 Aug 15;65(16):7310-9. PubMed PMID: 16103082.
  2. Mahloogi H, Bassi DE, Klein-Szanto AJ. Malignant conversion of non-tumorigenic murine skin keratinocytes overexpressing PACE4. *Carcinogenesis.* 2002 Apr;23(4):565-72. PubMed PMID: 11960907.
  3. Nomura H, Sato H, Seiki M, Mai M, Okada Y. Expression of membrane-type matrix metalloproteinase in human gastric carcinomas. *Cancer Res.* 1995 Aug 1;55(15):3263-6. PubMed PMID: 7614460.
  4. Tanaka M, Sato H, Takino T, Iwata K, Inoue M, Seiki M. Isolation of a mouse MT2-MMP gene from a lung cDNA library and identification of its product. *FEBS Lett.* 1997 Feb 3;402(2-3):219-22. PubMed PMID: 9037199.
- Pictures:** Staining of FFPE Mouse liver HCC (20x and 40x) with MMP15 Antibody Cat.-No AF881 (Clone 162-22G5) at 2 µg/ml. Antibody positive in the cytoplasm of some macrophages and Kuppfer cells of hepatocellular carcinoma (HCC).

