

## DESCRIPTION

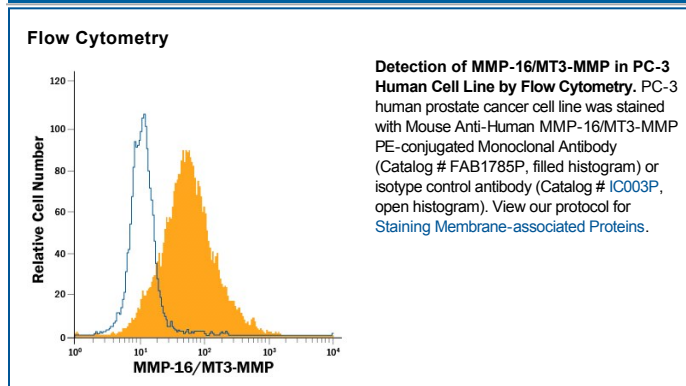
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human MMP-16/MT3-MMP in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human MMP-14, -15, or -24 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 782005
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human MMP-16/MT3-MMP Ala32-Pro535 Accession # P51512
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

Matrix Metalloproteinase 16 (MMP-16), also known as MT3-MMP, is a 62-63 kDa member of the peptidase M10A family of enzymes (1,2). MMP-16 is found on capillary endothelial cells, cortical neurons cerebellar granule cells, granulosa lutein and theca lutein cells, and melanoma cells (3-6). MMP-16 has been shown to cleave proMMP-2 in a complex with chondroitin-4 sulfate (7). It also cleaves NgR1 and select matrix proteins (4). Notably, cleavage of MMP-14 inactivates this molecule, arresting cell migration (6). Structurally, proMMP-16 is 65-66 kDa in size and consists of the following domains: a pro domain containing the furin cleavage site, a catalytic domain containing the zinc-binding site, a hinge region, a hemopexin-like domain, a transmembrane domain, and a cytoplasmic tail (1). There is one soluble 47-48 kDa splice variant that retains proteolytic activity. Over amino acids (aa) 32-535, human and mouse MMP-16 share 98% amino acid sequence identity.

## References:

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2. Nagase, H. *et al.* (2006) *Cardiovasc. Res.* **69**:562.
3. Lozito, T.P. and R.S. Tuan (2012) *J. Cell. Physiol.* **227**:534.
4. Ferraro, G.B. *et al.* (2011) *J. Biol. Chem.* **286**:31418.
5. Puttabyatappa, M, *et al.* (2014) *Biol. Reprod.* **91**:1.
6. Tatti, O. *et al.* (2015) *Cancer Res.* **75**:2083.
7. Iida, J. *et al.* (2007) *Biochem. J.* **403**:533.
8. Shimada, T. *et al.* (1999) *Eur. J. Biochem.* **262**:907.
9. Matsumoto, S., *et al.* (1997) *Biochim. Biophys. Acta.* **1354**:159.