

Monoclonal Antibody to Mast Cell Protease-8 - Purified

Alternate names: MCPTT8, mMCP-8

Catalog No.: AM33087PU-S

Quantity: 25 µg

Concentration: 0.5 mg/ml

Background: mMCP-8 and its rat homologues, rMCP-8, -9, and -10, form a new group of mast cell/basophil proteases, which are more closely related to the T-cell granzymes and neutrophil cathepsin G than to the mast cell tryptases and chymases. mMCP-8 showed a high degree of homology with mouse granzyme B in the critical regions for determining substrate cleavage specificity. It preferentially cleaves after Asp residues. mMCP-8 mRNA is highly expressed in a mouse connective tissue MC-like tumor line. However, it could not be detected in mouse liver, intestine, lung or ears, indicating very low expression in normal tissues. A strong increase in mMCP-8 levels in the lungs can be detected in infected animals.

Structure: A 247-aa polypeptide including a signal sequence of 18 aa followed by a 2-aa activation peptide (Gly-Glu) and a mature protease of 227 aa.

Distribution: mMCP-8 was initially isolated as a cDNA from a mouse mast cell line, but has recently been found to be expressed primarily by mouse basophils.

Uniprot ID: [P43430](#)

NCBI: [NP_032598.1](#)

GeneID: [17231](#)

Host / Isotype: Rat / IgG2a

Recommended Isotype Controls: SM15P, SM15PX

Clone: TUG8

Immunogen: Recombinant GST-Mouse mMCP-8 fusion protein expressed in *E.coli*.

Format: **State:** Liquid purified IgG fraction
Purification: Affinity Chromatography
Buffer System: PBS, pH 7.2
Preservatives: 0.09% Sodium Azide

Applications: **Western blot:** Each lot of this antibody is quality control tested.
Recommended Dilutions: Use 2.0 µg/ml.
See also Application References 1,2.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** This TUG8 monoclonal antibody recognizes Mouse Mast Cell Protease-8 (mMCP-8). Other species not tested.
- Storage:** Store undiluted at 2-8°C.
DO NOT FREEZE!
Shelf life: one year from despatch.
- General Readings:**
1. Ugajin T, Kojima T, Mukai K, Obata K, Kawano Y, Minegishi Y, et al. Basophils preferentially express mouse Mast Cell Protease 11 among the mast cell tryptase family in contrast to mast cells. *J Leukoc Biol.* 2009 Dec;86(6):1417-25. doi: 10.1189/jlb.0609400. PubMed PMID: 19703899.
 2. Uto-Konomi A, Miyauchi K, Ozaki N, Motomura Y, Suzuki Y, Yoshimura A, et al. Dysregulation of suppressor of cytokine signaling 3 in keratinocytes causes skin inflammation mediated by interleukin-20 receptor-related cytokines. *PLoS One.* 2012;7(7):e40343. doi: 10.1371/journal.pone.0040343. Epub 2012 Jul 5. PubMed PMID: 22792286.
 3. Lützelshwab C, Huang MR, Kullberg MC, Aveskogh M, Hellman L. Characterization of mouse mast cell protease-8, the first member of a novel subfamily of mouse mast cell serine proteases, distinct from both the classical chymases and tryptases. *Eur J Immunol.* 1998 Mar;28(3):1022-33. PubMed PMID: 9541598.
 4. Lunderius C, Hellman L. Characterization of the gene encoding mouse mast cell protease 8 (mMCP-8), and a comparative analysis of hematopoietic serine protease genes. *Immunogenetics.* 2001 Apr;53(3):225-32. PubMed PMID: 11398967.
- Pictures:** Cell extracts from untransfected NIH/3T3 cells (lane 1) or NIH/3T3 cells transfected with a plasmid encoding mMCP-8-Flag tagged protein (lane 2), using anti-mMCP-8, clone TUG8.

