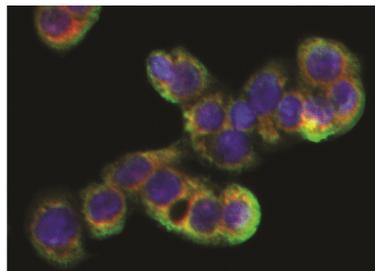




## Mouse Anti-Human MMP-1

Cat. No.	Format	Size
12011-01	Purified (UNLB)	0.1 mg
12011-05	Horseradish Peroxidase (HRP)	1.0 mL
12011-08	Biotin (BIOT)	0.1 mg



Human colon carcinoma cells were stained with Mouse Anti-Human MMP-1-FITC (SB. Cat. No. 12011; Clone SB12e; in development) and Mouse Anti-Human MMP-2-CY3 (SB. Cat. No. 12015; Clone SB13a; in development).

### Overview

<b>Clone</b>	SB12e
<b>Isotype</b>	Mouse (BALB/c) IgG <sub>2b</sub> K
<b>Immunogen</b>	Recombinant full length MMP-1
<b>Specificity</b>	Human/Rabbit MMP-1
<b>Alternate Name(s)</b>	Matrix metalloproteinase 1, collagenase 1, interstitial collagenase, fibroblast collagenase

### Description

Matrix metalloproteinases (MMPs) are a family of at least 23 structurally related, zinc-containing enzymes that have the ability to breakdown connective tissue. MMP-1 has shown substrate specificity to collagens types I, II, III, VII, VIII, X, and XI as well as additional extracellular matrix components including gelatin, fibronectin, laminin, and proteoglycan.

### Applications

ELISA – Quality tested <sup>1</sup>  
 IHC-PS – Reported in literature <sup>2,3</sup>  
 IHC-FS – Reported in literature <sup>4,5</sup>  
 ICC <sup>14</sup>  
 WB – Reported in literature <sup>6-12</sup>  
 Multiplex – Reported in literature <sup>13</sup>

### Working Dilutions

<b>ELISA</b>	Purified (UNLB) antibody	≤ 2 µg/mL
	HRP conjugate	1:2,000 – 1:4,000
	BIOT conjugate	1:5,000 – 1:10,000

**Other Applications** Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

**For Research Use Only. Not for Diagnostic or Therapeutic Use.**

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA Mailing Address: P.O. Box 26221 • Birmingham, AL 35260 • USA

Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • Fax: 205.945.8768

Email: [info@southernbiotech.com](mailto:info@southernbiotech.com) • Website: [www.southernbiotech.com](http://www.southernbiotech.com)

## Handling and Storage

---

- The purified antibody (UNLB) is supplied as 0.1 mg purified immunoglobulin in 0.2 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The horseradish peroxidase (HRP) conjugate is supplied as 1.0 mL of stock solution in 50% glycerol/50% PBS, pH 7.4. *No preservative added.* Store at 2-8°C or long-term at -20°C.
- The biotin (BIOT) conjugate is supplied as 0.1 mg in 0.2 mL PBS/NaN<sub>3</sub>. Store at 2-8°C.
- Reagents are stable for the period shown on the label if stored as directed.

## Warning

---

Some reagents contain sodium azide. Please refer to product specific (M)SDS.

## References

---

1. Attia E, Bohnert K, Brown H, Bhargava M, Hannafin JA. Characterization of total and active matrix metalloproteinases-1, -3, and -13 synthesized and secreted by anterior cruciate ligament fibroblasts in three-dimensional collagen gels. *Tissue Eng Part A*. 2014;20:171-7. (ELISA, Rabbit Reactivity)
2. Singh M, Kindelberger D, Nagymanyoki Z, Ng S, Quick CM, Elias KM, et al. Matrix metalloproteinases and their inhibitors and inducer in gestational trophoblastic diseases and normal placenta. *Gynecol Oncol*. 2011;122:178-82. (IHC-PS)
3. Austin KM, Nguyen N, Javid G, Covic L, Kuliopulos A. Noncanonical matrix metalloproteinase-1-protease-activated receptor-1 signaling triggers vascular smooth muscle cell dedifferentiation and arterial stenosis. *J Biol Chem*. 2013;288:23105-15. (IHC-PS)
4. Lama P, Le Maitre CL, Dolan P, Tarlton JF, Harding IJ, Adams MA. Do intervertebral discs degenerate before they herniate, or after?. *Bone Joint J*. 2013;95-B:1127-33. (IHC-FS)
5. Wolk K, Mitsui H, Witte K, Gellrich S, Gulati N, Humme D, et al. Deficient cutaneous antibacterial competence in cutaneous T-cell lymphomas: role of Th2-mediated biased Th17 function. *Clin Cancer Res*. 2014;20:5507-16. (IHC-FS)
6. Titeux M, Pendaries V, Tonasso L, Décha A, Bodemer C, Hovnanian A. A frequent functional SNP in the MMP1 promoter is associated with higher disease severity in recessive dystrophic epidermolysis bullosa. *Hum Mutat*. 2008;29:267-76. (WB)
7. Prato M, D'Alessandro S, Van den Steen PE, Opdenakker G, Arese P, Taramelli D, et al. Natural haemozoin modulates matrix metalloproteinases and induces morphological changes in human microvascular endothelium. *Cell Microbiol*. 2011;13:1275-85. (WB)
8. Garamszegi N, Garamszegi SP, Scully SP. Matrix metalloproteinase-1 contribution to sarcoma cell invasion. *J Cell Mol Med*. 2012;16:1331-41. (WB)
9. Chang Z, Kishimoto Y, Hasan A, Welham NV. TGF-β3 modulates the inflammatory environment and reduces scar formation following vocal fold mucosal injury in rats. *Dis Model Mech*. 2014;7:83-91. (WB)
10. Gregori J, Méndez O, Katsila T, Pujals M, Salvans C, Villarreal L, et al. Enhancing the biological relevance of secretome-based proteomics by linking tumor cell proliferation and protein secretion. *J Proteome Res*. 2014;13:3706-21. (WB)
11. Pickard A, McDade SS, McFarland M, McCluggage WG, Wheeler CM, McCance DJ. HPV16 down-regulates the insulin-like growth factor binding protein 2 to promote epithelial invasion in organotypic cultures. *PLoS Pathog*. 2015;11(6):e1004988. (WB)
12. Shu Z, Shi X, Nie D, Guan B. Low-molecular-weight fucoidan inhibits the viability and invasiveness and triggers apoptosis in IL-1β-treated human rheumatoid arthritis fibroblast synoviocytes. *Inflammation*. 2015;38:1777-86. (WB)
13. Fabre V, Wu H, PondTor S, Coutinho H, Acosta L, Jiz M, et al. Tissue inhibitor of matrix-metalloproteinase-1 predicts risk of hepatic fibrosis in human *Schistosoma japonicum* infection. *J Infect Dis*. 2011;203:707-14. (Multiplex)
14. SouthernBiotech published data (ICC)

TB12011

17-Mar-16

---

**Corporate Offices:** 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA

**Tel:** 205.945.1774 • U.S. and Canada: 800.722.2255 • **Fax:** 205.945.8768

**Email:** [info@southernbiotech.com](mailto:info@southernbiotech.com) • **Website:** [www.southernbiotech.com](http://www.southernbiotech.com)