

# Anti-MMP2 Antibody [SI15-04]

ET1606-4



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 74 kDa
<b>Clone number:</b>	SI15-04

**Description:** Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix (ECM) 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. This gene encodes an enzyme which degrades type IV collagen, the major structural component of basement membranes. The enzyme plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. Activation of MMP-2 requires proteolytic processing. A complex of membrane type 1 MMP (MT1-MMP/MMP14) and tissue inhibitor of metalloproteinase 2 recruits pro-MMP 2 from the extracellular milieu to the cell surface. Activation then requires an active molecule of MT1-MMP and auto catalytic cleavage. Clustering of integrin chains promotes activation of MMP-2. Another factor that will support the activation of MMP-2 is cell-cell clustering. A wild-type activated leukocyte cell adhesion molecule (ALCAM) is also required to activate MMP-2.

**Immunogen:** Synthetic peptide within Human MMP2 aa 101-150 / 660.

**Positive control:** U-87 MG cell lysate, L6 cell lysate, mouse liver tissue.

**Subcellular location:** Cytoplasm, Nucleus, Membrane, Mitochondrion, Secreted.

**Database links:** SwissProt: P08253 Human | P33434 Mouse | P33436 Rat

**Recommended Dilutions:**

<b>WB</b>	1:2,000
<b>IHC-P</b>	1:50-1:200

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

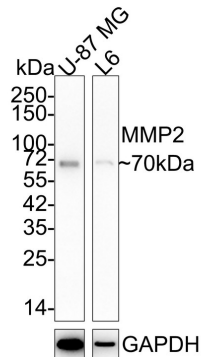
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## Images

**Fig1:** Western blot analysis of MMP2 on different lysates with Rabbit anti-MMP2 antibody (ET1606-4) at 1/2,000 dilution.

Lane 1: U-87 MG cell lysate

Lane 2: L6 cell lysate



Lysates/proteins at 15 µg/Lane.

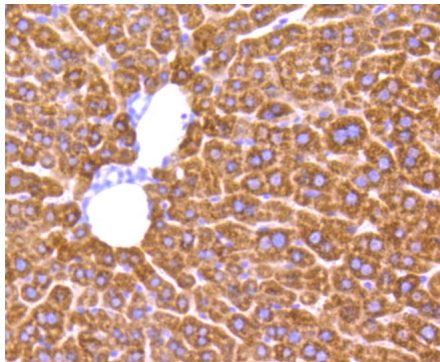
Predicted band size: 74 kDa

Observed band size: 70 kDa

Exposure time: 3 minutes 30 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (ET1606-4) at 1/2,000 dilution was used in 5% NFDm/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:50,000 dilution was used for 1 hour at room temperature.



**Fig2:** Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-MMP2 antibody. Counter stained with hematoxylin.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Kim BJ et al. Expression of matrix metalloproteinase-2 and -9 in human ligamentum flavum cells treated with tumor necrosis factor- $\alpha$  and interleukin-1. *J Neurosurg Spine* 24:428-35 (2016).
2. Dai X et al. SMAD3 deficiency promotes vessel wall remodeling, collagen fiber reorganization and leukocyte infiltration in an inflammatory abdominal aortic aneurysm mouse model. *Sci Rep* 5:10180 (2015).

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