

# Matrix Remodeling Antibody Sampler Kit

## HAK21072



Contains Product	Quantity	Applications	Species reactivity	MW(kDa)
TIMP1 [HA721741]	20μl	WB,IHC-P,FC	H	23 kDa
TIMP2 [HA723358]	20μl	WB	H,Mk	24 kDa
TIMP3 [HA722126]	20μl	WB,IF-Cell	H,R	24 kDa
MMP-2 [HA723308]	20μl	WB,IF-Cell,IHC-P,FC,IP	H,M,R	74 kDa
MMP-3 [ET1705-98]	20μl	WB,IHC-P	H,M,R	54 kDa
MMP-7 [HA723043]	20μl	WB,IF-Cell,FC,IHC-P	H	30 kDa
MMP-9 [ET1704-69]	20μl	WB,IF-Tissue,IHC-P,FC	H,M,R	78 kDa
MMP-14 [ET1606-48]	20μl	WB,IF-Cell,IF-Tissue,IHC-P,IP	H,M,R	66 kDa
HRP-Goat Anti-Rabbit IgG (H+L) [HA1001]	100μl	WB,ELISA,IHC-P	Rab	

**Description:** The Matrix Remodeling Antibody Sampler Kit provides an economical means of detecting different MMPs and TIMPs using the specific corresponding antibodies. The kit contains enough antibody to perform at least two western blot experiments with each primary antibody.

**Storage Buffer:** PBS (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. Avoid repeated freeze / thaw cycles.

**Background** Matrix remodeling is mainly controlled by MMPs and TIMPs. The matrix metalloproteinase (MMP) family of proteases are a group of zinc-dependent enzymes that target extracellular proteins, including growth factors, cell surface receptors, adhesion molecules, matrix structural proteins, and other proteases. Among the family members, MMP-2, MMP-3, MMP-7, MMP-9, and MMP14 (MT1-MMP) have been characterized as important factors for normal tissue remodeling during embryonic development, wound healing, tumor invasion, angiogenesis, carcinogenesis, and apoptosis.

MMP activity can be inhibited through its binding to endogenously expressed TIMPs. TIMPs are members of the family of tissue inhibitors of matrix metalloproteinases that include TIMP1, TIMP2, TIMP3, and TIMP4. The main function of TIMPs is their inhibitory effect on MMPs. TIMPs irreversibly inactivate MMPs by direct binding MMPs and chelating their zinc cofactor at the catalytic site to inhibit the proteinase function.

**Database links:** UniProt ID: P01033, P16035, P35625, P48032, P08253, P33434, P33436, P08254, P28862, P03957, P09237, P14780, P41245, P50282, P50281, P53690, Q10739

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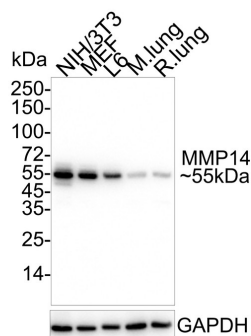
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## Images



**Fig1:** Western blot analysis of MMP-14 on different lysates with Rabbit anti-MMP-14 antibody (ET1606-48) at 1/1,000 dilution.

Lane 1: NIH/3T3 cell lysate

Lane 2: MEF cell lysate

Lane 3: L6 cell lysate

Lane 4: Mouse lung tissue lysate

Lane 5: Rat lung tissue lysate

Lysates/proteins at 20/40  $\mu$ g/Lane.

Predicted band size: 66 kDa

Observed band size: 55 kDa

Exposure time: 10 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (ET1606-48) at 1/1,000 dilution was used in 5% NFDN/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.

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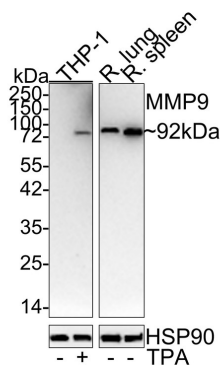
**Fig2:** Western blot analysis of MMP-9 on different lysates with Rabbit anti-MMP-9 antibody (ET1704-69) at 1/5,000 dilution.

Lane 1: THP-1 whole cell lysate

Lane 2: THP-1 treated with 200nM TPA for 10 minutes whole cell lysate

Lane 3: Rat lung tissue lysate

Lane 4: Rat spleen tissue lysate



Lysates/proteins at 20 µg/Lane.

Predicted band size: 78 kDa

Observed band size: 92 kDa

Exposure time: 2 minutes;

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 (ET1704-69) at 1/5,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

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

## Background References

1. Hadler-Olsen E, Fadnes B, Sylte I, Uhlin-Hansen L, Winberg JO. Regulation of matrix metalloproteinase activity in health and disease. *FEBS J.* 2011 Jan;278(1):28-45.
2. Lin PK, Davis GE. Extracellular Matrix Remodeling in Vascular Disease: Defining Its Regulators and Pathological Influence. *Arterioscler Thromb Vasc Biol.* 2023 Sep;43(9):1599-1616.

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