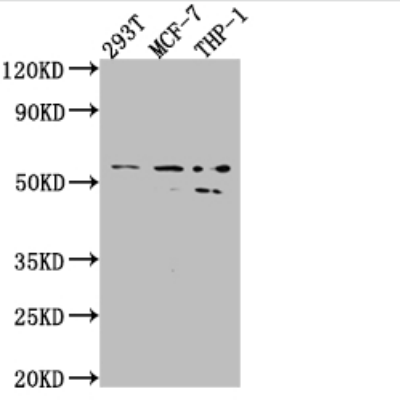
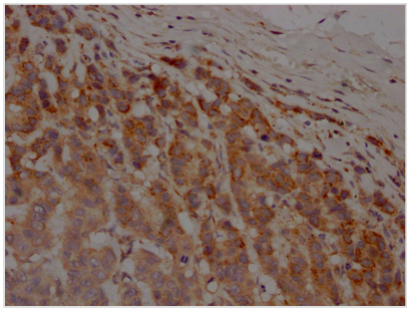
MMP12 Antibody

Product Code	CSB-RA595609A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P39900
Immunogen	A synthesized peptide derived from human MMP12
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	May be involved in tissue injury and remodeling. Has significant elastolytic activity. Can accept large and small amino acids at the P1' site, but has a preference for leucine. Aromatic or hydrophobic residues are preferred at the P1 site, with small hydrophobic residues (preferably alanine) occupying P3.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Signal transduction
Gene Names	MMP12
Accession NO.	2G3

Image



Western Blot
Positive WB detected in: 293T whole cell lysate, MCF-7 whole cell lysate, THP-1 whole cell lysate
All lanes: MMP12 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 55 kDa
Observed band size: 54, 45 kDa



IHC image of CSB-RA595609A0HU diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

MMP12 is a protease that degrades extracellular matrix elastin and enables the infiltration of immune cells responsible for inflammation and granuloma formation. It is highly expressed by macrophages and is involved in macrophage migration. Evidence has shown that MMP12 is an important mediator of both acute and chronic lung injury and is directly involved in the development of inflammatory responses. MMP12 also plays a role in airway inflammation and remodeling. MMP12 expression is increased in the lungs of asthmatic patients. MMP12 may affect the blood-brain barrier after cerebral ischemia.

To produce this recombinant MMP12 antibody, we needed to get the gene sequence of the antibody. B cell screening was used in the process. Once the sequence was obtained, it would be lead to the expression plasmids so that the MMP12 antibody can be expressed in mammalian cells. Moreover, this recombinant MMP12 antibody was validated in ELISA, WB, IHC.