Data Sheet (Cat.No.TMAY-00955)

Anti-MMP-1 Antibody (2Y884)

Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2Y884
Purification:	Protein A

Applications

Application:	ELISA
Recommended	ELISA: 1:1000-1:2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human MMP1 Protein (TMPY-00886)
Antigen Species:	Human
Synonyms:	CLGN;matrix metallopeptidase 1;CLG
Biology Area:	Cancer Drug Targets

Research Background

MMP1, also known as MMP-1, contains 4 hemopexin-like domains and is a member of the matrix metalloproteinase (MMP) family. Matrix metalloproteases, also called matrixins, are zinc-dependent endopeptidases that are the major proteases involved in ECM degradation. MMPs are capable of degrading a wide range of extracellular molecules and some bioactive molecules. MMP activity is regulated by two major endogenous inhibitors: alpha2-macroglobulin and tissue inhibitors of metalloproteases (TIMPs). MMPs play a central role in cell proliferation, migration, differentiation, angiogenesis, apoptosis, and host defenses. Dysregulation of MMPs has been implicated in many diseases including arthritis, chronic ulcers, encephalomyelitis, and cancer. Tumour metastasis is a multistep process involving the dissemination of tumor cells from the primary tumor to secondary at a distant organ or tissue. One of the first steps in metastasis is the degradation of the basement membrane, a process in which MMPs have been implicated. MMPs are secreted by tumor cells themselves or by surrounding stromal cells stimulated by the nearby tumor. Numerous studies have linked altered MMP expression in different human cancers with poor disease prognosis. MMP-1, -2, -3, -7, -9, -13 and -14 all have elevated expression in primary tumors and/or metastases. MMP-1 cleaves collagens of types I, II, and III at one site in the helical domain. It also cleaves collagens of types VII and X. In case of HIV infection, MMP1 interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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