Matrix Metalloproteinase 2 (MMP-2, MMP2, MMP-II, Collagenase IV, 72kD Type IV Collagenase, Collagenase Type 4 alpha, CLG4A, CLG4, 72kD Gelatinase, Gelatinase A, Gelatinase alpha, Gelatinase Neutrophil, MONA, TBE-1)

Catalog number

M2420-52A

Supplier

United States Biological

Loss of negative growth regulation and high invasive potential are neoplastic traits often associated with abnormal expression of matrix matalloproteinases. MMP-2, the signalling mechanism for cells to begin migration, triggers the movement when it splits laminin-5 and exposes and integrin-binding site on this component of epithelial basement membrane. The changed form of laminin was found in tumors and in tissues being altered. The activated form of MMP2, however, is not found in benign tumors. Thus detection of the enzyme is a possible early indicator of tumor activity.

Applications

Suitable for use in ELISA, Western Blot, Immunofluorescence/Immunocytochemistry, Immunoprecipitation and Immunohistochemistry. Other applications not tested.

Recommended Dilutions

ELISA: 0.03ug/ml
Western Blot 1-2ug/ml
Immunofluorescence (IC): 1:10-1:2000
Immunohistochemistry (Frozen/paraffin): 2ug/ml
Immunoprecipitation: 1-2ug/100-500ug total protein
Optimal dilutions to be determined by the researcher.

Positive Control

Human ulcer and human ovary tissue

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months after receipt. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Immunogen

Activated recombinant human MMP-2 (P08253)

Formulation

Supplied as a liquid in PBS, pH 7.4, 0.05% sodium azide.

Purity

Purified by Protein G affinity chromatography.

Specificity

Recognizes pro and active human MMP-2 at 70 and 62kD representing the MMP2 band-pair. Species Crossreactivity: rat and mouse

Product Type

Mab

Source

human

Isotype

IgG1,k

Grade

Affinity Purified

Applications

E IC IF IHC IP WB

Crossreactivity

Hu Mo Rt

Storage

-20°C

Reference

1. Zuo, J., Ferguson, T.A., Hernandez, Y.J., Stetler-Stevenson, W.G., and D. Muir. Neuronal matrix metalloproteinase-2 degrades and inactivates a neurite-inhibiting chondroitin sulfate proteoglycan. J. Neuroscience. 18: 5203-5211 (1998). 2. Ferguson, T.A., and D. Muir. MMP-2 and MMP-9 increase the neurite-promoting potential of schwann cell basal laminae and are upregulated in degenerated nerve. Mol. Cell Neurosci. 16: 157-67 (2000). 3. D. Muir. Differences in proliferation and invasion by normal, transformed and NF1 Schwann cell cultures are influenced by matrix metalloproteinase expression. Clin. Exp. Metastasis. 13: 303-314 (1995).