Human MMP-9 Antibody

Monoclonal Mouse IgG_1 Clone # 4H3

Catalog Number: MAB911

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MMP-9 in Western blots. In Western blots, reactivity with the pro (92 kDa), active (82 kDa), and C-terminal truncated (65 kDa) forms of recombinant human (rh) MMP-9 is observed. Also in Western blots, 20% cross-reactivity with rhMMP-2, 5% cross-reactivity with rhMMP-1, and no cross-reactivity with rhMMP-3, -7, -8, -10, -12, or -13 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 4H3
Purification	Protein A or G purified from ascites
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human MMP-9
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

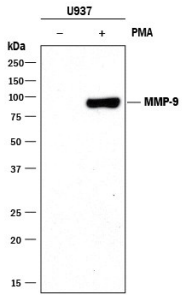
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunohistochemistry	25-100 µg/mL	Immersion fixed paraffin-embedded sections of human ovarian and breast cancer tissues
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human MMP-9 (Catalog # 911-MP), see our available Western blot detection antibodies
CyTOF-reported	Brodie, T.M. *et al.* (2018) Cytometry Part A. **93**: 406. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Western Blot



Detection of Human MMP-9 by Western Blot. Western blot shows lysates of U937 human histiocytic lymphoma cell line untreated (-) or treated (+) with 5 ng/mL PMA for 24 hours. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human MMP-9 Monoclonal Antibody (Catalog # MAB911) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for MMP-9 at approximately 85 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Matrix metalloproteinases are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-9 (Gelatinase B) can degrade a broad range of substrates including gelatin, collagen types IV and V, elastin and proteoglycan core protein. It is believed to act synergistically with interstitial collagenase (MMP-1) in the degradation of fibrillar collagens as it degrades their denatured gelatin forms. MMP-9 is produced by keratinocytes, monocytes, macrophages and PMN leukocytes. MMP-9 is present in most cases of inflammatory responses. Structurally, MMP-9 maybe be divided into five distinct domains: a pro-domain which is cleaved upon activation, a gelatin-binding domain consisting of three contiguous fibronectin type II units, a catalytic domain containing the zinc binding site, a proline-rich linker region, and a carboxyl terminal hemopexin-like domain.

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