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#33437

## ECM Profiling Sampler Kit

Cell Signaling  
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For Research Use Only. Not For Use In Diagnostic Procedures.

Product Includes	Quantity	MW (kDa)	Isotype/Source
MMP-1 (E9S9N) Rabbit mAb 54376	20 µl	55	Rabbit IgG
MMP-2 (D4M2N) Rabbit mAb 40994	20 µl	64,72	Rabbit IgG
MMP-9 (D6O3H) XP® Rabbit mAb 13667	20 µl	84, 92	Rabbit IgG
MMP-13 (E4W3T) Rabbit mAb 69926	20 µl	60	Rabbit IgG
Fibronectin/FN1 (E5H6X) Rabbit mAb 26836	20 µl	300	Rabbit IgG
MMP-3 (D7F5B) Rabbit mAb 14351	20 µl	60	Rabbit IgG
LOX (D8F2K) Rabbit mAb 58135	20 µl	54, 56	Rabbit IgG
COL11A1 (E607R) Rabbit mAb 70458	20 µl	250	Rabbit IgG
COL1A1 (E6A8E) Rabbit mAb 39952	20 µl	220	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody 7074	100 µl		Goat

See [www.cellsignal.com](http://www.cellsignal.com) for individual component applications, species cross-reactivity, dilutions, and additional application protocols.

**Description:** The ECM Profiling Sampler Kit provides an economical means of detecting endogenous levels of the specific ECM components using the corresponding antibodies. The kit includes enough antibodies to perform two western blot experiments with each primary antibody.

**Background:** The extracellular matrix (ECM) is a cell surface associated three-dimensional macromolecular network composed of collagens, proteoglycans/glycosaminoglycans, elastin, fibronectin, laminins, and several other glycoproteins (1). The network provides a dynamic microenvironment surrounding the cell enabling it to carry on its function. Among the ECM proteins, fibronectin functions as a mediator to bridge distinct ECM components such as collagens, growth factors, as well as cell surface integrins to regulate ECM structural change and initiate signaling pathways (2). During normal development and pathological conditions, the ECM network is highly dynamic and continuously undergoes remodeling marked by the change of the ECM structural components, such as COL1A1, COL11A1, fibronectin, and versican. The matrix-degrading enzyme MMPs such as MMP1, MMP2, and MMP9 are highly involved in this process (4). Additional players in this process are the LOX family members of lysyl oxidase. They catalyze the first step of the covalent cross-linking of ECM proteins, collagens, and elastin, which contributes to ECM stiffness and mechanical properties (5).

**Specificity/Sensitivity:** Each antibody in the ECM Profiling Sampler Kit detects endogenous levels of its target protein.

**Source/Purification:** Monoclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val267 of human MMP-1 protein, Phe542 of human MMP-9 protein, Ser417 of human MMP-3 protein, carboxyl terminal region of human MMP13 protein, Glu320 of human COL11A1 protein, Lys170 of human COL1A1 protein, recombinant protein specific to the carboxy terminus of human MMP-2 protein, recombinant protein specific to the carboxy terminus of human FN1 protein, and a recombinant protein specific to human LOX protein.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibodies.

Please visit [www.cellsignal.com](http://www.cellsignal.com) for validation data and a complete listing of recommended companion products.

**Background References:**

- (1) Theocharis, A.D. et al. (2019) *FEBS J* 286, 2830-69.
- (2) Zollinger, A.J. and Smith, M.L. (2017) *Matrix Biol* 60-1, 27-37.
- (3) Paolillo, M. and Schinelli, S. (2019) *Int J Mol Sci* 20, pii: E4947. doi: 10.3390/ijms20194947.
- (4) Bonnans, C. et al. (2014) *Nat Rev Mol Cell Biol* 15, 786-801.
- (5) Amendola, P.G. et al. (2019) *Cancers (Basel)* 11, pii: E729. doi: 10.3390/cancers11050729.

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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.