

Fibronectin

Mouse Monoclonal IgG1

Cat. # FM0141

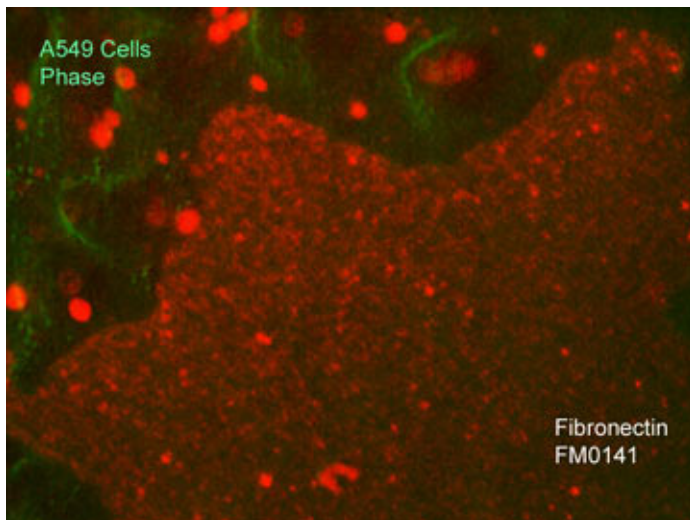
Size 100 µl

Background

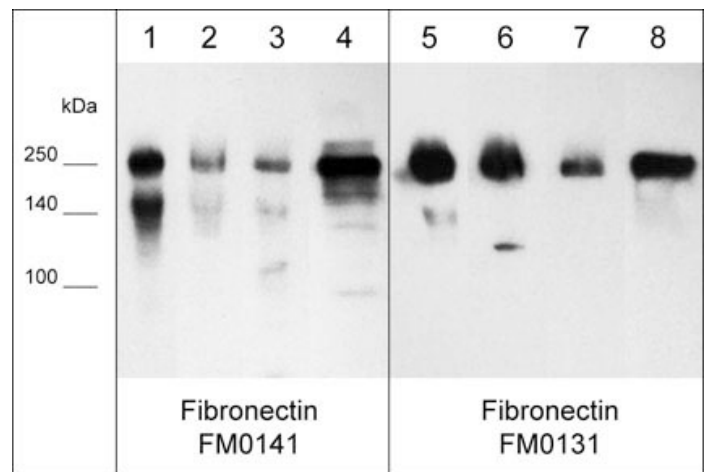
In the extracellular matrix, fibronectin provides essential connections to cells through interaction with integrins and other receptors that regulate cell adhesion, migration, and differentiation. Fibronectin is secreted as a large dimeric glycoprotein with subunits that range in size from 230 kDa to 270 kDa. Fibronectin is composed of three different types of modules termed type I, II, and III repeats, as well as two fibrin binding and two heparin binding domains, a collagen interaction region and cell attachment domain. The diverse set of binding domains provides fibronectin with the ability to interact simultaneously with other fibronectin molecules, other ECM components (e.g., collagens and proteoglycans), cell surface receptors, and extracellular enzymes. Plasma fibronectin (soluble dimeric form) is secreted by hepatocytes, while cellular fibronectin (dimeric or cross-linked multimeric forms), made by fibroblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix. Fibronectin fibrillogenesis has important functions during tissue development, and during pathological progression of tissues and wound healing.

Background References

Schwarzbauer J & DeSimone D (2011) CSH Persp Biol. 1;3(7).
Wang Y & Ni H. (2016) Cell Mol Life Sci. 73(17):3265.
Zollinger AJ & Smith ML (2017) Matrix Biol. 60-61:27.



Immunocytochemical labeling of fibronectin in the extracellular matrix and cells of paraformaldehyde fixed human A549 cells. The cells were labeled with mouse monoclonal anti-fibronectin (clone M014). The antibody was detected using goat anti-mouse Ig DyLight® 594.



Western blot image of native human cell lysates: A549 (lanes 1 & 5), MeWo (lanes 2 & 6), and MDA-MB-231 (lanes 3 & 7), as well as human plasma Fibronectin (lanes 4 & 8). The blot was probed with mouse monoclonal antibodies anti-fibronectin FM0141 (lanes 1-4) or anti-fibronectin FM0131 (lanes 5-8) at 1:1000.

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Immunogen

Clone (M014) was generated from human Fibronectin purified from human plasma.

Buffer and Storage

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

| | |
|-------|--------|
| WB | 1:1000 |
| ELISA | 1:2000 |
| ICC | 1:50 |
| IP | 1:50 |

Species Reactivity

Hu, Rt, Ms, Ck

End user should determine optimal dilution for their particular applications and experiments.

Western blot membranes were incubated with diluted antibody in 5% non-fat milk, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

Clone M014 mouse monoclonal antibody detects a 250 kDa* protein on SDS-PAGE immunoblots of denatured and native human A549, MeWo, and MDA-MB-231 cells, as well as human plasma fibronectin. The antibody also works for immunoprecipitation, immunohistochemistry, and immunocytochemistry, as well as binds fibronectin in live cells and unfixed extracellular matrix.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

FM0131 Fibronectin (Cell/Heparin2 Binding region) Mouse Monoclonal

AK6060 Actin & Tubulin Antibody Sampler Kit

CK7720 Cytoskeletal Filament Labeling Immunocytochemistry Kit

CM0071 CD44 (Extracellular region) Mouse Monoclonal

LM5971 Laminin γ1 subunit (Domain IV) Mouse Monoclonal

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