

FXYD5/Dysadherin (Extracellular region)

Mouse Monoclonal IgG1

Cat. # FM0311

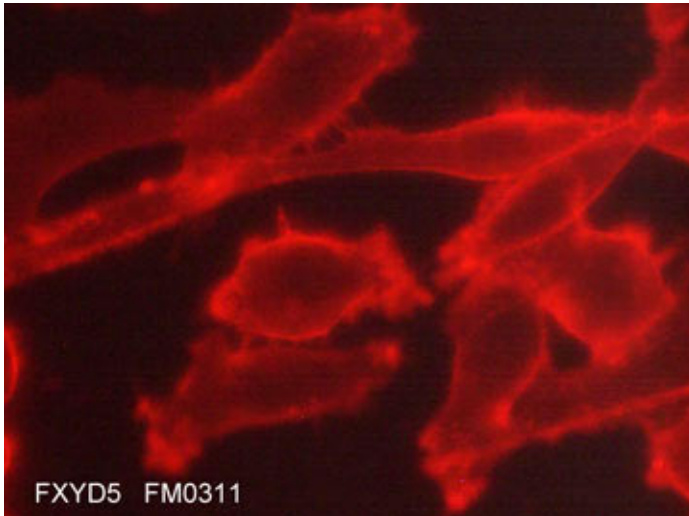
Size 100 µl

Background

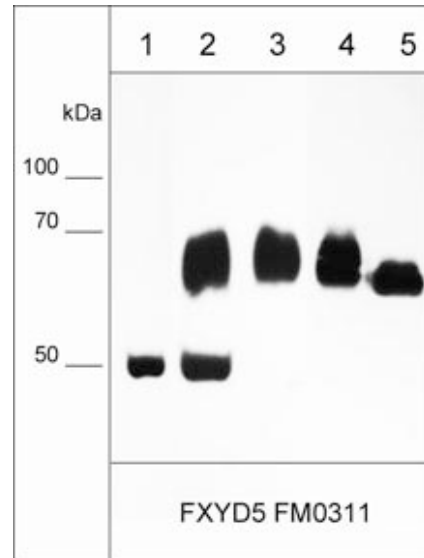
The Na⁺/K⁺ ATPase is an integral membrane heterodimer belonging to the P-type ATPase family. This ion channel uses the energy derived from ATP hydrolysis to maintain membrane potential by driving Na⁺ export and K⁺ import across the plasma membrane. It is composed of a large catalytic α subunit and a membrane-spanning auxiliary β subunit. In humans, the Na⁺/K⁺ ATPase is a binary complex of an α subunit that has four isoforms (α1-α4) and a β-subunit that has three isoforms (β1, β2, β3). In addition, the Na⁺/K⁺ ATPase can interact with a group of regulatory subunits, the FXYD type I membrane protein family. This family contains FXYD1-7, and each member contains the conserved F-X-Y-D motif in the trans-membrane domain. FXYD5 (Dysadherin) is expressed in a variety of cells and tissue, as well as upregulated in carcinomas. FXYD5 contains extensive O-glycosylation, and is expressed as molecules that range from 35 to 55 kDa depending on cell type. FXYD5 can reduce E-cadherin mediated cell-cell adhesions, and may be involved in carcinogenesis.

Background References

- Ino, Y. et al. (2002) PNAS, U S A. 99(1):365.
Lubarski, I. et al. (2005) J Biol Chem. 280(45):37717.
Lubarski Gottliv I. (2016) Front Cell Dev Biol. 4:26.



Immunocytochemical labeling of FXYD5 in paraformaldehyde fixed human MDA-MB-231 cells. The cells were labeled with mouse monoclonal FXYD5 (FM0311). The antibody was detected using goat anti-mouse Ig DyLight® 594.



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Immunogen

Clone (M031) was generated from a proprietary antigen related to the native human FXYD5 protein expressed in MDA-MB-231 breast cancer cell line.

Buffer and Storage

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

Applications

WB	1:500
ELISA	1:1000
ICC	1:100
IP	1:50

Species Reactivity

Hu

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 M031 mouse monoclonal antibody detects a 35-55 kDa* band on SDS-PAGE immunoblots of human A431, A549, MeWo, MDA-MB-231 cell, as well as human breast, lung, and skin tissues. The antibody works for western blot, immunoprecipitation, ELISA, and immunocytochemistry, as well as detects the FXYD5 protein on live cells.

*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

FM0291 FXYD5/Dysadherin (Extracellular region) Mouse Monoclonal

NM0161 Na⁺/K⁺ ATPase β 3 (Extracellular) Mouse Monoclonal

NM0201 Na⁺/K⁺ ATPase β 3 Mouse Monoclonal

NM0251 Na⁺/K⁺ ATPase β 3 (Extracellular) Mouse Monoclonal

CK7720 Cytoskeletal Filament Labeling Immunocytochemistry Kit

CK6260 E-Cadherin Phospho-Regulation Antibody Sampler Kit

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