

Annexin A5

Mouse Monoclonal IgG1

IP-MS Validated

Cat. # AM0171

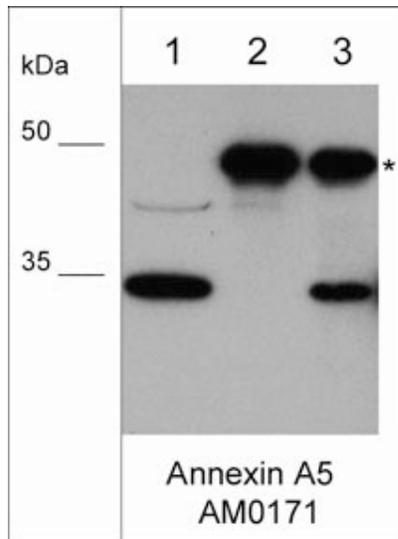
Size 100 μ l

Background

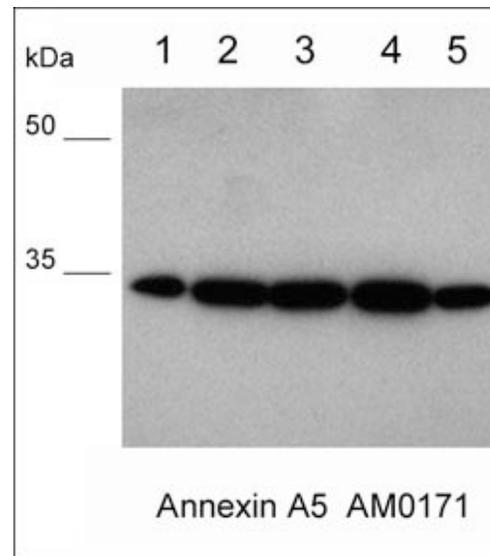
The Annexin family is composed of at least thirteen mammalian genes (Annexin A1-13). These proteins are characterized by a conserved core domain which binds to phospholipids in a Ca^{2+} -dependent manner and a unique amino terminal region which may confer binding specificity. Annexins have roles in membrane fusion, endocytosis, secretion, and repair. Annexin A1 binds to cellular membranes in a calcium-dependent manner, promotes membrane fusion and endocytosis, and has been implicated as an anti-inflammatory mediator. Annexin A2 is a cytoskeletal calcium-dependent phospholipid binding protein, which has been shown to be a mediator of corticosteroid activity, a substrate for serine/threonine kinases and growth regulated tyrosine kinases, and may play a role in secretion. Annexin A5 is a PKC inhibitor, directly interacts with VEGFR2 receptor, and binds phosphatidylserine to inhibit blood coagulation. Annexin A6 reverses transformation of A431 cells after overexpression, and this effect may involve annexin A6 targeting of p120 RasGAP to the plasma membrane to inactivate Ras.

Background References

- Grewal T & Enrich C (2009) Cell Signal. 21(6):847.
Hoque M et al. (2014) Cell Signal. 26(6):1213.
Boye TL & Nylandsted J (2016) Biol Chem. 397(10):961.



Western blot of A431 cell lysate only (lane 1), AM0171 antibody only (lane 2), and AM0171 antibody immunoprecipitate from A431 (lane 3). The blot was probed with mouse monoclonal anti-Annexin A5 antibody (AM0171) at 1:500 (lanes 1-3). The asterisk shows the antibody heavy chain in immunoprecipitates at 50 kDa, while Annexin A5 band is observed at 35 kDa.



Western blot of human PC3 cells (lane 1), human breast tissue (lane 2), lung tissue (lane 3), skin tissue (lane 4), and brain tissue (lane 5). The blot was probed with mouse monoclonal anti-Annexin A5 antibody (AM0171) at 1:500 (lanes 1-5).

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Size 100 µl

Immunogen

Clone M017 was generated from a proprietary antigen related to human Annexin A5 in the MDA-MB-231 breast cancer cell line.

Buffer and Storage

Mouse monoclonal, protein G purified antibody is supplied in 100 µl 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 |
| IP-MS | 1:100 |

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 M017 detects a 35 kDa* protein corresponding to the molecular mass of Annexin A5 on SDS-PAGE immunoblots of human A431, MDA-MB-231, MeWo, and PC3 cells, as well as human skin, breast, lung, and brain. The antibody works for ELISA, western blot, and immunoprecipitation. In addition, mass spectrometry analysis of immunoprecipitates using AM0171 in human MDA-MB-231 cell lysates confirms this antibody only detects Annexin A5 protein.

*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

AM0091 Annexin A2 Mouse Monoclonal

AM2981 Annexin A2 (C-terminal region) Mouse Monoclonal

AM3301 Annexin A6 Mouse Monoclonal

AK6060 Actin & Tubulin Antibody Sampler Kit

AK6730 Annexin Family Antibody Sampler Kit

CK7720 Cytoskeletal Filament Labeling Immunocytochemistry Kit

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