PRODUCT INFORMATION



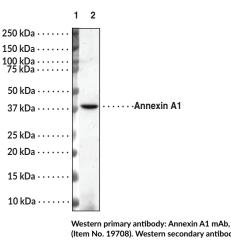
Annexin A1 Monoclonal Antibody (Clone 3F5)

Item No. 19707

Overview and Properties

Contents: Synonyms: Immunogen:	This vial contains 500 μg of protein G-purified antibody. p35, Annexin I, ANXA1, Calpactin II, Chromobindin-9, Lipocortin I, Phospholipase A2 Full length recombinant human Annexin A1 protein
Species Reactivity	: (+) Human; other species not tested
Uniprot No.:	P04083
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.01% BSA, and 0.02% sodium azide
Clone:	3F5
Host:	Mouse
Isotype:	lgG1
Applications:	ELISA and Western blot (WB); the recommended starting dilution is 1:200 for ELISA and WB. Other applications were not tested, therefore optimal working concentration/ dilution should be determined empirically.

Image



Western primary antibody: Annexin A1 mAb, (Item No. 19708). Western secondary antibody: Anti-mouse HRP (Item No. 10004302). Developed by ECL. Lane 1: Standard Lane 2: A549 Cell Lysate

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user <u>must</u> review the <u>complete</u> Safety Data Sheet, which has been sent via email to your institution.

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Description

Annexins are a superfamily of 13 proteins sharing a high degree of homology. They have in common a core C-terminal domain containing calcium and phospholipid binding motifs, allowing most of them to bind to phospholipid membranes in a calcium-dependent manner. The N-terminal domains vary between family members and provide unique a function.¹

Annexin A1 is an endogenous mediator of inflammation, promoting resolution in a number of ways. Normally expressed in intracellular compartments, it is drawn to the cell membrane and both induced and externalized by glucocorticoid response pathways.^{2,3} The glucocorticoid-induced production and release of annexin A1 is the primary means by which glucocorticoids function as anti-inflammatory agents. Annexin A1 inhibits the synthesis of pro-inflammatory eicosanoids by suppressing the function of sPLA₂. This, in turn, limits the recruitment of neutrophils into inflammatory sites and downregulates the production of pro-inflammatory mediators by those neutrophils that enter inflammatory sites.⁴ Meanwhile, proteolytic fragments generated in response to increased expression are implicated in producing a marker for phagocytosis.⁵

Annexin A1 also functions in the resolution of inflammation by inducing neutrophil apoptosis, and promoting neutrophil clearance (efferocytosis) by macrophages. The pro-resolving functions of annexin A1 are mediated *via* binding to FPR2/ALX, a receptor it shares with the specific pro-resolving mediators lipoxin A₄ (Item No. 90410) and resolvin D1 (Item No. 10012554).⁴ The molecule's regulatory role has led to investigation of the downstream effects of annexin A1, including cancer, adaptive immunity, and wound repair.⁶⁻⁸

The predicted size of annexin A1 is 38.7 kDa and Cayman's Annexin A1 Monoclonal Antibody (Clone 3F5) detects a size 39 kDa band *via* western blot.

References

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- 8. Leoni, G., Neumann, P.-A., Kamaly, N., *et al.* Annexin A1-containing extracellular vesicles and polymeric nanoparticles promote epithelial wound repair. *J. Clin. Invest.* **125(3)**, 1215-1227 (2015).

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