

FITC Annexin V

Catalog# / Size	640905 / 25 tests 640906 / 100 tests 640945 / 300 tests
Regulatory Status	RUO
Other Names	Annexin A5, Dead, Apoptosis
Description	Annexin V (or Annexin A5) is a member of the annexin family of intracellular proteins that binds to phosphatidylserine (PS) in a calcium-dependent manner. PS is normally only found on the intracellular leaflet of the plasma membrane in healthy cells, but during early apoptosis, membrane asymmetry is lost and PS translocates to the external leaflet. Fluorochrome-labeled Annexin V can then be used to specifically target and identify apoptotic cells. Annexin V Binding Buffer (cat. no. 422201) is recommended for use with Annexin V staining. Annexin V binding alone cannot differentiate between apoptotic cells and necrotic. Therefore, we recommend using our Helix NP™ Blue (Cat. No. 425305), Helix NP™ Green (Cat. No. 425303) or Helix NP™ NIR (Cat. No. 425301). Early apoptotic cells will exclude 7-AAD and PI, while late stage apoptotic cells and necrotic cells will stain positively, due to the passage of these dyes into the nucleus where they bind to DNA.

Product Details

Verified Reactivity	Human, Mouse, Rat
Reported Reactivity	Other Species
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The purified protein was conjugated with FITC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The Annexin V solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this product is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per 100,000 - million cells in a 100 µl volume of Annexin V Binding Buffer (Cat No. 422201). It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm)
Application Notes	<p>Annexin V Staining</p> <ol style="list-style-type: none"> 1. Wash cells twice with cold BioLegend Cell Staining Buffer (Cat. No. 420201) and then resuspend cells in Annexin V Binding Buffer (Cat. No. 422201) at a concentration of 1×10^6 cells/mL. 2. Transfer 100 µL of cell suspension in 5 mL test tube. 3. Add 5 µL of fluorochrome conjugated Annexin V. 4. Stain with a viability dye, such as PI (Cat. No. 421301), 7-AAD (Cat. Nos. 420403 & 420404), or Helix NP dyes (Cat. Nos. 425301, 425303, & 425305), if desired. 5. Gently vortex the cells and incubate for 15 min at RT (25°C) in the dark. 6. Add 400* µL of Annexin V Binding Buffer (Cat. No. 422201) to each tube. *For more concentrated samples, add a minimum of 200 µl of Annexin V Binding Buffer in this step. 7. Analyze by flow cytometry.

For a better experience detecting apoptosis, we now recommend [Apotracker™](#). Cell staining with Apotracker™ is Calcium independent. Thus, no special buffers are required, and the protocol can be shortened for single-step co-staining with other reagents.

Application References

(PubMed link indicates BioLegend citation)

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7. Gupta A, et al. 2011. *Leuk Res.* 35:1498. [PubMed](#)
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Product Citations

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RRID

AB_2561291 (BioLegend Cat. No. 640905)
AB_2561292 (BioLegend Cat. No. 640906)
AB_2629519 (BioLegend Cat. No. 640945)

Antigen Details

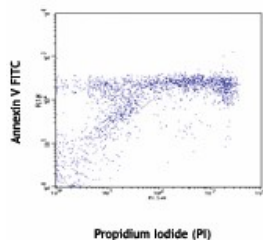
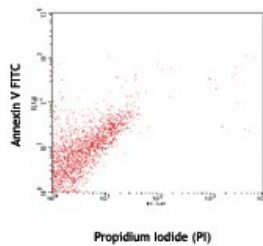
Biology Area

Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Neuroscience

Gene ID

[308](#)

Product Data



Human T leukemia cell line, Jurkat, non-treated (top) or treated (bottom) with BioLegend's anti-human CD95 (EOS9.1) mAb (cat. 305704) for 6 hours, then stained with Annexin V-FITC and Propidium Iodide (PI) (cat. 421301)

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