

APC Annexin V

Catalog# / Size	640919 / 25 tests 640920 / 100 tests 640941 / 300 tests
Regulatory Status	RUO
Other Names	Annexin A5
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	All mammalian species
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The purified protein was conjugated with APC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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	Red Laser (633 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 1x10⁶ cells/ml. 2. Transfer 100 µl of cell suspension in 5 ml test tube. 3. Add 5 µl of APC Annexin V. 4. Add 10 µl of PI solution (Cat. No. 421301) or 7-AAD (Cat. No. 420403/420404). 5. Gently vortex the cells, and incubate for 15 min at room temperature (25°C), in the dark. 6. Add 400 µl of Annexin V Binding Buffer (Cat. No. 422201) to each tube. Analyze by flow cytometry. <p>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</p>
Application References	<ol style="list-style-type: none"> 1. Koopman G, et al. 1994. <i>Blood</i> 84:1415. 2. Vermes I, et al. 1995. <i>J. Immunol. Methods</i> 184:39. 3. Dachary-Prigent J, et al. 1993. <i>Blood</i> 81:2554. 4. Sekine C, et al. 2009. <i>Int Immunol.</i> PubMed 5. Grujic M, et al. 2010. <i>J. Immunol.</i> 185:1730. PubMed 6. Hussain MS, et al. 2013. <i>Hum Mol Genet.</i> 22:5199. PubMed 7. Feng Q, et al. 2014. <i>PLoS One.</i> 9:95927. PubMed
(PubMed link indicates BioLegend citation)	

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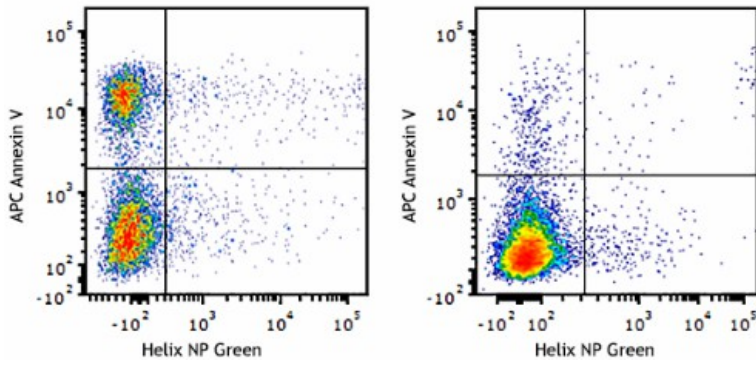
RRID not an antibody (BioLegend Cat. No. 640919)
 AB_2561515 (BioLegend Cat. No. 640920)
 AB_2616657 (BioLegend Cat. No. 640941)

Antigen Details

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

Gene ID [308](#)

Product Data



Human T leukemia cell line Jurkat, treated (left) or non-treated (right) with BioLegend's anti-human CD95 (EOS9.1) mAb (Cat. No. 305704) for 4 hours, then stained with Annexin V- APC and Helix NP Green (Cat. No. 425303 at 5 nM) in Annexin V Binding buffer for 15 minutes at 25°C.

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