

Detecting Apoptosis and Cell Death

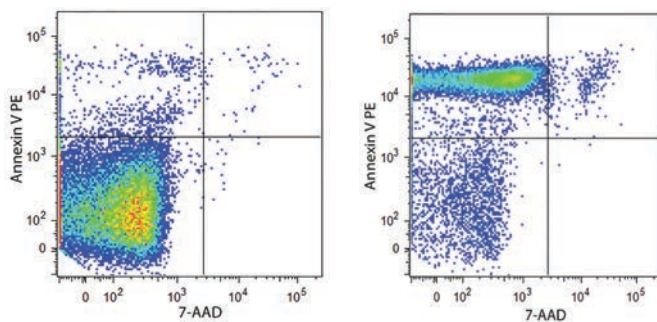
Annexin V

Annexin V

Annexin V belongs to the annexin family of intracellular proteins that bind to phosphatidylserine (PS) in a calcium-dependent manner. In viable cells, PS is located on the inner leaflet of the plasma membrane. While maintaining an intact plasma membrane, cells undergoing early apoptosis will experience a loss of membrane asymmetry involving the translocation of PS to the external leaflet. Fluorescently labeled Annexin V may be used to specifically target and identify cells engaged in the early stages of apoptosis.

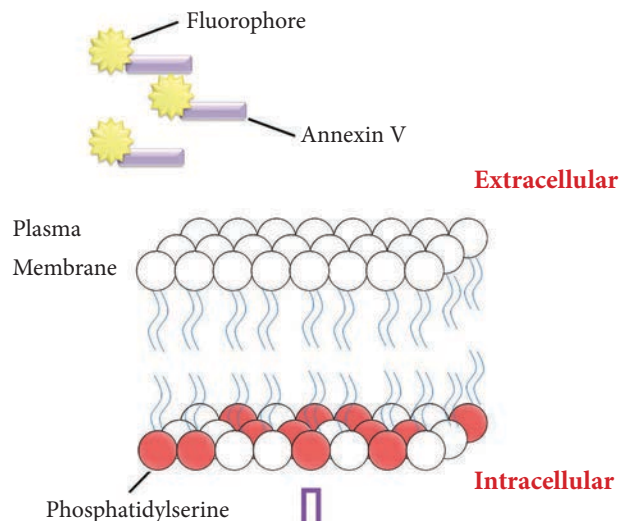
During late apoptosis or necrosis, plasma membrane integrity is lost, which allows for the access of live cell impermeant DNA dyes such as Propidium Iodide (PI) and 7-Aminoactinomycin D (7-AAD). The dual staining of cells with Annexin V and either PI or 7-AAD will effectively resolve viable, early apoptotic and late apoptotic/necrotic cell populations by flow cytometry. Early apoptotic cells will exclude 7-AAD and PI, staining positive for Annexin V only, while late stage apoptotic and necrotic cells will exhibit positive staining, due to the passage of these dyes into the cell nucleus.

Product Data

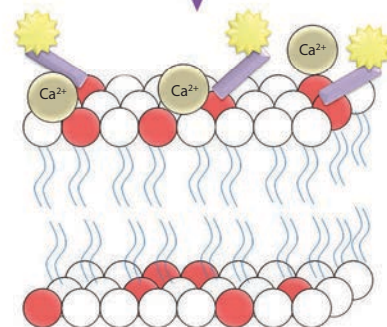


Human T-cell leukemia cell line, Jurkat, was treated (right) or non-treated (left) with LEAF™ purified anti-human CD95 (clone EOS9.1) for 4 hours, and then stained with PE Annexin V Apoptosis Detection Kit with 7-AAD.

Healthy Cell



Apoptotic Cell



BioLegend is ISO 9001:2008 and ISO 13485:2003 Certified

Toll-Free Tel: (US & Canada): 1.877.BIOLEGEND (246.5343)

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Reagents for Apoptosis and Cell Death Detection

For the latest product updates and product information, visit: biolegend.com

Apoptosis Detection Kits

| Description | Size | Cat. No. |
|--|-----------|----------|
| APC Annexin V Apoptosis Detection Kit with 7-AAD | 100 tests | 640930 |
| APC Annexin V Apoptosis Detection Kit with PI | 100 tests | 640932 |
| FITC Annexin V Apoptosis Detection Kit with 7-AAD | 100 tests | 640922 |
| FITC Annexin V Apoptosis Detection Kit with PI | 100 tests | 640914 |
| Pacific Blue™ Annexin V Apoptosis Detection Kit with 7-AAD | 100 tests | 640926 |
| Pacific Blue™ Annexin V Apoptosis Detection Kit with PI | 100 tests | 640928 |
| PE Annexin V Apoptosis Detection Kit with 7-AAD | 100 tests | 640934 |

Annexin V Conjugates

| Description | Size | Cat. No. |
|---------------------------------|----------------------|-----------------|
| Alexa Fluor® 647 Annexin V | 25 tests 100 tests | 640911 640912 |
| APC Annexin V | 25 tests 100 tests | 640919 640920 |
| Biotin Annexin V | 100 tests | 640904 |
| Brilliant Violet 421™ Annexin V | 25 tests | 640923 |
| Brilliant Violet 510™ Annexin V | 25 tests | 640937 |
| FITC Annexin V | 25 tests 100 tests | 640905 640906 |
| Pacific Blue™ Annexin V | 25 tests 100 tests | 640917 640918 |
| PE Annexin V | 25 tests 100 tests | 640907 640908 |
| PerCP/Cy5.5 Annexin V | 25 tests 100 tests | 640935 640936 |
| Purified Annexin V | 100 µg 500 µg | 640901 640902 |

Additional Reagents

| Description | Size | Cat. No. |
|--------------------------|-----------------------|-----------------|
| Annexin V Binding Buffer | 100 ml | 422201 |
| 7-AAD | 200 tests 500 tests | 420403 420404 |
| Propidium Iodide | 2 ml | 421301 |

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Brilliant Violet™ is a trademark of Sirigen Group Ltd.



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