

# Cell Apoptosis Assay



## Annexin V Binding Assays



**Sensitivity:** Conjugated to Andy Fluor™ dyes for brighter signals.

**Simplicity:** Assay procedure typically completed in less than 30 minutes.

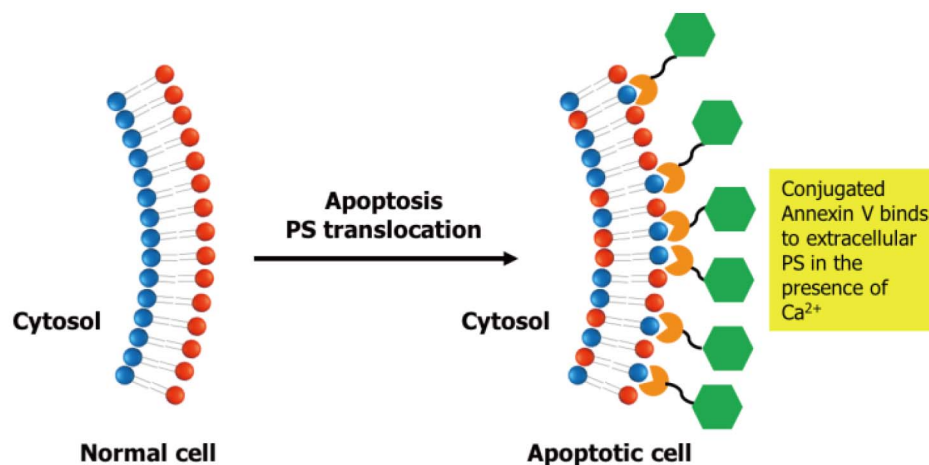


Figure 1. Principle of Annexin V binding assay

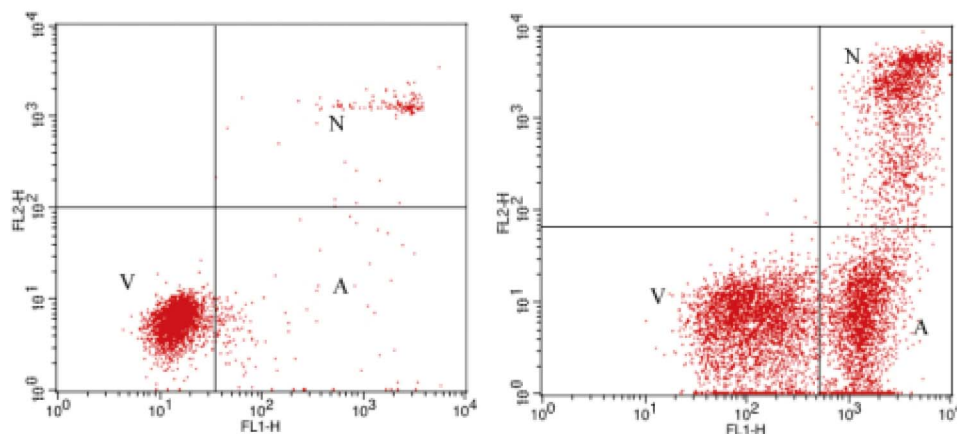


Figure 2. Jurkat cells treated with 10 µM camptothecin for four hours (right panel) or untreated (as control, left panel). Cells were stained with eGFP Annexin V and PI Apoptosis Kit (A025), then analyzed by flow cytometry.

Cat. No.	Product Name	Probe for Apoptotic Cells Ex/Em (nm)	Probe for Apoptotic Cells Ex/Em (nm)	Unit Size
A025	eGFP Annexin V and PI Apoptosis Kit	eGFP Annexin V (475/509)	PI (535/617)	100 assays
A026	FITC Annexin V and PI Apoptosis Kit	FITC Annexin V (490/519)	PI (535/617)	100 assays
A027	Andy Fluor™ 488 Annexin V and PI Apoptosis Kit	Andy Fluor™ 488 Annexin V (495/520)	PI (535/617)	100 assays
A028	Apoptotic, Necrotic, and Healthy Cells Detection Kit	Andy Fluor™ 488 Annexin V (495/520)	PI (535/617)	50 assays

## TUNEL Assays

The later stages of apoptosis are characterized by changes in nuclear morphology, including DNA fragmentation, chromatin condensation, degradation of the nuclear envelope, nuclear blebbing, and DNA strand breaks. DNA fragmentation that occurs during apoptosis produces DNA strand breaks, which can be analyzed using TUNEL (terminal deoxynucleotidyl transferase dUTP nick end-labeling) assays.

ABP Biosciences offers a series of TUNEL assays for high sensitive detection of late stage of apoptosis in cells and tissue sections, including FFPE-treated samples.



**Broad application:** Suitable for FFPE tissue, frozen tissue and cells

**High sensitivity:** Can detect a low population of apoptotic cells

**Multicolor:** Many fluorophores to choose

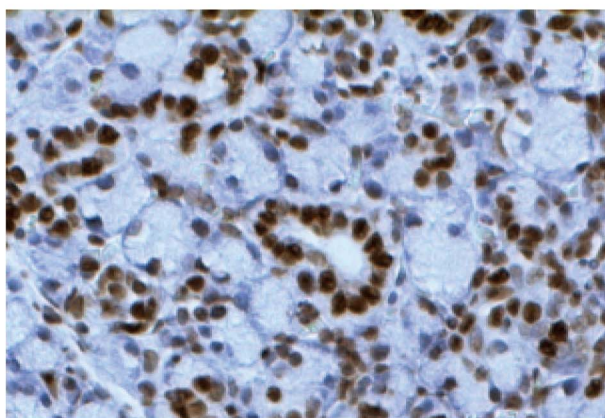
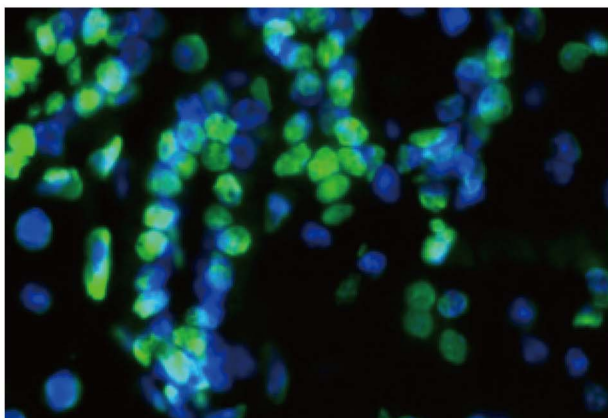


Figure 3. Terminal deoxynucleotidyl transferase dUTP nick end labeling (TUNEL)-mediated detection of apoptotic cells in mouse tongue tissue. The imaging results using TUNEL Andy Fluor™ 488 Apoptosis Detection Kit (left), and TUNEL Chromogenic Apoptosis Detection Kit (right).

Cat. No.	Product Name	Ex/Em(nm)	Unit Size
A049	TUNEL Chromogenic Apoptosis Detection Kit	-	50 assays
A050	TUNEL Andy Fluor™ 488 Apoptosis Detection Kit	495/520	50 assays
A051	TUNEL Andy Fluor™ 594 Apoptosis Detection Kit	590/615	50 assays
A052	TUNEL Andy Fluor™ 647 Apoptosis Detection Kit	650/665	50 assays