For Research Use Only.
Not for use in diagnostic procedures.

Annexin V-PE

Code No.	Quantity
4696-100	500 µL (100 tests)

BACKGROUND: Apoptosis, a term that describes regulated cell death, is fundamental feature of many processes including normal development, homeostasis, and disease. Early during the process of apoptosis, cells lose their phospholipid membrane asymmetry and expose phosphatidylserine (PS) at the cell surface. This process can be monitored by using Annexin V which is a Ca^{2+}-dependent, phospholipid-binding protein with high affinity for PS, and is useful for identifying apoptotic cells with exposed PS.

SOURCE: Recombinant annexin V protein produced in *E. coli.*

FORMULATION: Phycoerythrin (PE) conjugated annexin V solution is bufferlyzed with PBS (containing 0.09% NaN_3 and 1 mg/mL BSA), pH 7.2.

*Azide may react with copper or lead in plumbing system to form explosive metal azides. Therefore, always flush plenty of water when disposing materials containing azide into drain.

STORAGE: This product is stable for 2 years from the date of manufacture when stored at 4°C.

REACTIVITY: Annexin V-PE bind PS in a Ca^{2+}-dependent manner.

APPLICATION:

Flow cytometry; 5 µL (ready for use)

Detailed procedure is provided in the following **PROTOCOL**.

INTENDED USE:

For Research Use Only. Not for clinical diagnosis.

REFERENCES:

1) Taguchi T., *et al*. *J Immunol.*, **170**, 252-260 (2003)
2) Suzuki T., *et al*. *J Immunol.*, **166**, 5567-5577 (2001)

RELATED PRODUCTS:

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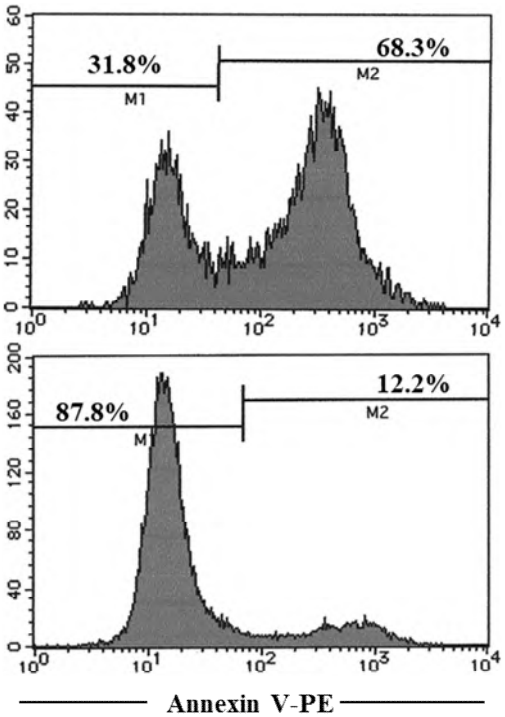

Detection of apoptotic cells with Annexin V-PE
Upper: Jurkat cells treated with Fas monoclonal antibody (CH-11, MBL, code no. SY-001)
Lower: Non-treat

The descriptions of the following protocols are examples. Each user should determine the appropriate condition.

PROTOCOL:

Flow cytometry

Since apoptosis is a very rapid and dynamic process, we recommend that you perform analysis immediately after staining.

1) Induce apoptosis by desired method.*
   *e.g. Using anti-Fas antibody. (Please refer to the data sheet for CH-11, MBL code no. SY-001.)
2) Wash the cells (2 x 10^5 cells) to be used for staining once with PBS.**
   **For adherent cells, trypsinize and gently wash cells once with serum-containing media followed by wash once with PBS.
3) Resuspend the cells in 500 µL of 5x Annexin V Binding Buffer (MBL, code no. 4695-300).
4) Add 5 µL of Annexin V-PE and mix well and incubate at room temperature for 15 minutes in the dark.
5) Analyze by a flow cytometer.