

## PRODUCT ANALYSIS SHEET

**Catalog Number:** PNN1001  
**Lot Number:** See product label  
**Exp. Date:** See product label  
**Composition:** 0.1 M HEPES/NaOH, pH 7.4, 1.4 M NaCl, 25 mM CaCl<sub>2</sub>  
**Volume:** 50 mL  
**Preservation:** None. Filtered (0.22 micron).  
**Storage:** Store at 2-8°C














**Specificity:** One of the membrane changes in the early stage of apoptosis is the translocation of phosphatidylserine (PS) from the inner leaflet of the cell membrane to the cell surface. Annexin-V is a high affinity PS binding protein. However, the binding of Annexin-V to PS requires the presence of Ca<sup>++</sup>. Under defined salt and calcium concentrations, Annexin-V conjugates are utilized as basic tools in detecting apoptotic cells.

**Application:** This product was validated for use in flow cytometry in conjunction with our Apotarget™ series of Annexin-V products: Annexin-V FITC, (Cat. # PHN1008), Annexin-V Cy3 (Cat. # PHN1000), Annexin-V Biotin (Cat. # PHN1009) and Propidium Iodide Buffer (Cat. # PNN1011).

When preparing 1X Annexin-V Binding Buffer, 1 volume of 10X Annexin-V Binding Buffer should be added to 9 volumes of distilled water. The concentration of 1X Binding Buffer, the working buffer for Annexin-V binding assay, is 10 mM HEPES/NaOH, pH7.4, 140 mM NaCl, 2.5 mM CaCl<sub>2</sub>.

- References:**
1. Andree H.A., *et al.* (1990) Binding of vascular anticoagulant  $\alpha$  (VAC  $\alpha$ ) to planar phospholipid bilayers. *J. Biol. Chem.* 265(9):4923-4928.
  2. Vermes I., *et al.* (1995). A novel assay for apoptosis: flow cytometric detection of phosphatidylserine expression on early apoptotic cells using fluorescein labeled Annexin V. *J. Immunol. Methods* 184:39-51.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		<i>In vitro</i> diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

**For research use only. CAUTION: Not for human or animal therapeutic or diagnostic use.**

[www.invitrogen.com](http://www.invitrogen.com)

Manufactured under ISO 13485 Quality Standard

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