

## ARG80927 Annexin V-FITC/PI Apoptosis Assay Kit

Package: 100 tests  
Store at: 4°C

### Component

| Cat. No.     | Component Name              | Package          |
|--------------|-----------------------------|------------------|
| ARG80927-001 | rh Annexin V-FITC           | 1 vial (0.5 ml)  |
| ARG80927-002 | Binding Buffer (4x)         | 1 bottle (20 ml) |
| ARG80927-003 | Propidium Iodide (20 µg/ml) | 1 vial (1.0 ml)  |

### Summary

|                     |   |
|---------------------|---|
| Product Description | ARG80927 Annexin V-FITC/PI Apoptosis Assay Kit can be used to detect phosphatidylserine on the outer leaflet of the cell membrane using flow cytometry.   |
| Tested Application  | FACS  |
| Target Name         | Annexin V-FITC/PI Apoptosis   |
| Conjugation         | FITC  |
| Alternate Names     | Placental anticoagulant protein 4; PAP-I; Thromboplastin inhibitor; Annexin V; ENX2; Lipocortin V; Anchorin CII; ANX5; Annexin-5; Annexin A5; VAC-alpha; CBP-I; PP4; HEL-S-7; Vascular anticoagulant-alpha; Endonexin II; Placental anticoagulant protein I; RPRGL3; Calphobindin I |

### Application Instructions

| Application table | <table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>FACS</td><td>5 µl/10<sup>5</sup> cells</td></tr> </table>   | Application | Dilution | FACS | 5 µl/10 <sup>5</sup> cells |
|-------------------|--|-------------|----------|------|----------------------------|
| Application       | Dilution   |             |          |      |                            |
| FACS              | 5 µl/10 <sup>5</sup> cells   |             |          |      |                            |
| Application Note  | Bacterial or fungal contamination of either screen samples or reagents or cross-contamination between reagents may cause erroneous results. Disposable pipette tips, flasks or glassware are preferred, reusable glassware must be washed and thoroughly rinsed of all detergent before use. Please refer the user manual for the detail protocol. |             |          |      |                            |

### Properties

|                     |  |
|---------------------|--|
| Form                | Liquid   |
| Storage instruction | Store kit reagents between 2-8°C. Immediately after use remaining reagents should be returned to cold storage (2-8°C). |
| Note                | For laboratory research only, not for drug, diagnostic or other use.   |

### Bioinformation

|                |            |
|----------------|------------|
| Gene Symbol    | ANXA5      |
| Gene Full Name | annexin A5 |

|               |  |
|---------------|--|
| Background    | <p>Annexins are a family of calcium-dependent phospholipid-binding proteins. They are abundant in eukaryotic organisms belonging to a family of ubiquitous cytoplasmic proteins involved in signal transduction. All annexins have been shown to have a putative binding site for protein kinase C (PKC) but only annexin V would possess a potential pseudo- substrate site. Thus annexin V seems to modulate the activity of some PKCs on their substrates.</p> <p>AnnexinV was found to play a major role in matrix vesicle-initiated cartilage calcification as a collagen-regulated calcium channel. Annexin V binds to procoagulant phospholipids (Vascular anticoagulant alpha) with high affinity.</p> <p>Annexin V's preferential binding partner is phosphatidylserine (PS). PS is predominantly located in membrane leaflets, which face the cytosol. However, recent findings show that each cell type has the molecular machinery to expose PS at its cell surface. This machinery is activated during the execution of apoptosis. Once PS is exposed at the cell surface it exhibits procoagulant and proinflammatory activities. Annexin V will bind to the PS-exposing apoptotic cell and can inhibit the procoagulant and proinflammatory activities of the dying cell.</p> |
| Function      | This protein is an anticoagulant protein that acts as an indirect inhibitor of the thromboplastin-specific complex, which is involved in the blood coagulation cascade. [Uniprot]  |
| Research Area | Cancer kit; Cell Biology and Cellular Response kit; Cell Death kit   |
| PTM           | S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-density lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.   |