

AF 647 Annexin V

Article number: KF-YG0712

specification: 5 μ g

Product description

Annexin V dye conjugates can stain the surface of apoptotic cells. Human anticoagulant Annexin V is a 35–36 kDa Ca²⁺-dependent phospholipid-binding protein with a high affinity for phosphatidylserine (PS). In living cells, PS is primarily located on the inner leaflet of the plasma membrane. During the early stages of apoptosis, PS flips from the inner leaflet to the outer leaflet. At this time, fluorescently labeled Annexin V can bind to the PS located on the outer leaflet to detect apoptotic cells.

- Conjugates are available in 24 bright and photostable fluorescent dyes, ranging from green to near-infrared.
- Among them, 7 CF[®] dyes are second-generation dyes specially designed by Biotium, offering advantages of better water solubility, higher stability, and stronger fluorescence brightness compared to other commercially available dyes.
- Azide-free, enabling wash-free, real-time live cell imaging in culture media.
- Quickly and easily detects phosphatidylserine in apoptotic cells, suitable for



real-time live cell imaging, fluorescence microscopy, or flow cytometry.

Annexin V conjugates are typically provided as stock solutions with azide as a preservative, intended for endpoint staining assays in Annexin V binding buffers. Our azide-free Annexin V dye conjugates are stored as lyophilized powders, free of azide or other preservatives that may be incompatible with live-cell imaging. After reconstitution with buffer, the conjugates can be added directly to cell culture media for wash-free, real-time live-cell imaging.

Kefan also provides Annexin V with any label paired with commonly used dead cell/late apoptotic cell stains (Propidium Iodide-PI, SYTOX Green, EthD-III, 7-AAD, etc.) to customize the required apoptosis detection kits.

Product Nature

Apoptosis/viability marker: phosphatidylserine/Annexin V

Experimental subject: intact/live cells

Detection methods: fluorescence microscopy, live-cell imaging, flow cytometry

Detection types: endpoint detection, homogeneous detection, continuous staining (24-72h), wash-free staining, real-time imaging

Color: blue, green, red, far-red

Fixation option: post-staining fixation (formaldehyde)

Morphology: lyophilized



Storage and transportation

Storage conditions: Store at 4° C protected from light, valid for at least 6 months.

It is recommended to thaw the product for the first time and prepare a storage solution of appropriate concentration, then aliquot and store as needed to avoid partial protein inactivation caused by repeated freeze-thaw cycles. After reconstitution, the product is valid for 1 week when stored at 4° C protected from light; adding BSA to a final concentration of 1 mg/mL and storing at -20° C allows for long-term storage, but freezing will cause a reduction in fluorescence effect.

