CREATIVE BIOMART®
Assay Kit

AO Fluorescent Stain Kit

Product Information

Product Overview

Acridine Orange (AO) is a tricyclic heteroaromatic fluorescent dye with membrane permeability, allowing it to stain intracellular DNA and RNA. AO binds nucleic acids via two mechanisms: intercalation into double-stranded DNA, emitting green fluorescence (Ex/Em ~ 488/530 nm), and electrostatic binding to single-stranded nucleic acids or RNA, emitting orange-red fluorescence (Em ~ 640 nm).
Thus, AO fluoresces green when bound to double-stranded DNA and orange to red when associated with RNA or single-stranded DNA. The AO Detection Kit consists of AO stain and AO staining buffer and is commonly used for apoptosis analysis.
Under fluorescence microscopy, normal cells exhibit uniform green or yellow-green nuclear fluorescence. Apoptotic cells show chromatin condensation and nuclear fragmentation with dense yellow-green fluorescent granules, while necrotic cells display weakened or absent fluorescence. AO is frequently combined with ethidium bromide (EB) for dual staining to distinguish viable, apoptotic, and necrotic cells.

Size

100t

Storage

Store at 2–8 °C, protected from light. Shelf life: 6 months.

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