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NucView® 488 & MitoView™ 633 Apoptosis Assay Kit



No wash, homogeneous assay for profiling apoptotic cells based on caspase-3 activity and changes in the mitochondrial membrane potential using fluorescence microscopy, real-time imaging, or flow cytometry.

Product attributes

Apoptosis/viability marker	Caspase, Mitochondrial potential
For live or fixed cells	For live/intact cells
Detection method/readout	Fluorescence microscopy, Live cell imaging, Flow cytometry
Assay type/options	Endpoint assay, Long term staining (24-72h), No-wash staining, Real-time imaging
Substrate specificity	Caspases
Colors	Green/Far-red
Storage Conditions	Store at 2 to 8 °C, Protect from light

Product Description

This kit contains NucView® 488 Caspase-3 Substrate to detect apoptotic cells and MitoView™ 633 mitochondrial membrane potential dye.

- Rapid, no-wash, endpoint or real-time assay
- Non-toxic, allowing multi-day experiments to be performed
- For flow cytometry, microscopy or live cell imaging systems
- Dual detection of caspase activity (green) and mitochondrial membrane potential (red/far-red)

NucView® 488 Caspase-3 Substrate is able to detect both intracellular caspase-3 and at the same time stain the cell nucleus, which is known to undergo morphological changes during apoptosis. MitoView™ 633 is a far-red fluorescent mitochondrial dye. The staining is dependent upon the mitochondrial membrane potential; thus, apoptotic cells exhibit a much lower MitoView™ 633 dye staining compared to healthy cells. Furthermore, the spectral separation of these two dyes minimizes fluorescence overlap. See a video of NucView® & MitoView™ in real-time imaging.

Note: The optimal detection settings for MitoView™ 633 are the same as for Cy®5 and other far-red dyes. However, the dye also has visible red fluorescence and can be imaged using Cy®3 settings as well. As a consequence, the dye cannot be used for two-color imaging with other red probes.

To learn about the advantages of monitoring apoptosis using NucView® caspase-3 substrates, visit the NucView® Technology Page.

NucView is a registered trademark of Biotium. NucView enzyme substrate technology is covered by U.S. patents. Cy Dye is a registered trademark of Cytiva.

References

Download list of curated NucView® references and validated cell lines.