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Product Datasheet

Mitochondrial Permeability Transition Pore Assay ASC-KTA4002

Article Name	Mitochondrial Permeability Transition Pore Assay
Biozol Catalog Number	ASC-KTA4002
Supplier Catalog Number	KTA4002
Alternative Catalog Number	ASC-KTA4002-50, ASC-KTA4002-100
Manufacturer	Abbkine Scientific
Category	Kits/Assays
Product Description	Mitochondrial Permeability Transition Pore Assay Kit s a more direct detection method for detecting the opening of MPTP than only based on mitochondrial membrane potential analysis...
Tag	Mitochondrial Permeability Transition
Application Notes	Mitochondrial Permeability Transition Pore Assay Kit is a more direct detection method for detecting the opening of MPTP than only based on mitochondrial membrane potential analysis. The principle is: Firstly, loading Calcein AM through passive transportation, which is a kind of cell staining reagent for fluorescent labeling of living cells. It can easily penetrate the living cell membrane and is cleaved by intracellular esterase to form the membrane-impermeable polar molecule Calcein, which is then trapped in the cell and causes the cytoplasm including mitochondria to emit strong green fluorescence. After adding CoCl ₂ , the fluorescence from the cytoplasm is quenched by CoCl ₂ , only left fluorescence in the mitochondria. As a control, cells can be loaded with Calcein AM and CoCl ₂ , and treated with Ionomycin, so as to make cells load more Ca ²⁺ , which causes the activation of MPTP and quenching of mitochondrial fluorescence.