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Product Datasheet

Mitochondrial Permeability Transition Pore Assay ASC-KTA4002

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| 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 is 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. |