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Product Datasheet

Mitochondrial Membrane Potential Assay Kit (JC-1) ASC-KTA4001

Article Name	Mitochondrial Membrane Potential Assay Kit (JC-1)
Biozol Catalog Number	ASC-KTA4001
Supplier Catalog Number	KTA4001
Alternative Catalog Number	ASC-KTA4001-20, ASC-KTA4001-100, ASC-KTA4001-500
Manufacturer	Abbkine Scientific
Category	Kits/Assays
Product Description	Abbkine Mitochondrial Membrane Potential Assay Kit (JC-1) provides a simple method for distinguishing between healthy and apoptotic cells by detecting the changes in the mitochondrial transmembrane potential....
Tag	JC-1

Application Notes

Abbkine Mitochondrial Membrane Potential Assay Kit (JC-1) provides a simple method for distinguishing between healthy and apoptotic cells by detecting the changes in the mitochondrial transmembrane potential, based on a carbocyanine dye, JC-1. In healthy cells, this dye accumulates and aggregates in the mitochondria, where it forms bright red fluorescent agglomerates. Any event that dissipates the mitochondrial membrane potential prevents the accumulation of the JC-1 dye in the mitochondria and thus, the dye remains in the cytoplasm in its monomer form, leading to a shift from red (agglomerated JC-1, Ex/Em = 585/590 nm) to green fluorescence (JC-1 monomers, Ex/Em = 510/527 nm). JC-1 can be used as an indicator of mitochondrial potential in a variety of cell types, including myocytes and neurons, as well as in intact tissues and isolated mitochondria. This kit contains CCCP that causes an uncoupling of the proton gradient, which is established during the normal activity of electron carriers in the electron transport chain, and thus, dissipates the mitochondrial electrochemical potential and may be used as a control that prevents JC-1 aggregation.