



Mitochondrial Marker (AE1): sc-80885

BACKGROUND

Mitochondria are eukaryotic organelles that convert organic materials into energy in the form of ATP via the process of oxidative phosphorylation. Mitochondria also play important roles in apoptosis, cellular proliferation, regulation of the cellular redox state, heme and steroid synthesis, and glutamate-mediated excitotoxic neuronal injury. A typical cell has hundreds to thousands of mitochondria, each of which contain their own sets of DNA. Mitochondria also have unique proteins that can be used as mitochondrial markers. Several mitochondrial proteins are also expressed and synthesized during distinct phases of the development of the organelle, such as HSP 60, Lon protease, sulphhydryl oxidase and cytochrome c. These proteins can be used as mitochondrial development markers.

REFERENCES

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

Mitochondrial Marker (AE1) is a mouse monoclonal antibody raised against native mitochondria of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Mitochondrial Marker (AE1) is recommended for detection of mitochondria of all human tissue origin of human origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.