JC-10 (ultra pure)

Mitochondria dye

JC-10 is a derivative of JC-1 useful for determining mitochondrial membrane potential by flow cytometry, fluorescence microscopy and in microplate-based fluorescent assays. JC-10 accumulates in mitochondria, selectively generating an orange J-aggregate emission profile (590 nm) in healthy cells. However, upon cell injury, as membrane potential decreases, JC-10 monomers are generated, resulting in a shift to green emission (525 nm). The principal advantages of JC-10 relative to JC-1 include improved solubility in aqueous media and an ability to detect subtler changes in mitochondrial membrane potential loss. JC-10 allows for both qualitative visualization, considering the shift from orange to green fluorescence emission, and quantitative detection, considering the fluorescence intensity ratio, of mitochondrial membrane potential changes. Wavelength Maxima: Excitation 510nm, Emission 525nm

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ENZ-52305	5mg

Manuals, SDS & CofA View Online »

Handling & Storage

Use/Stability	Stable for at least one year after receipt when stored as recommended.
Handling	Protect from light. Keep cool and dry.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Enhanced JC-1
MW	~600
Purity	≥95% (HPLC)
Solubility	Soluble in DMSO.
Technical Info / Product Notes	This product is a member of the CELLESTIAL® product line, reagents and assay kits comprising fluorescent molecular probes that have been extensively benchmarked for live cell analysis applications. CELLESTIAL® reagents and kits are optimal for use in demanding imaging applications, such as confocal microscopy, flow cytometry and HCS, where consistency and reproducibility are required.

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ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

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