

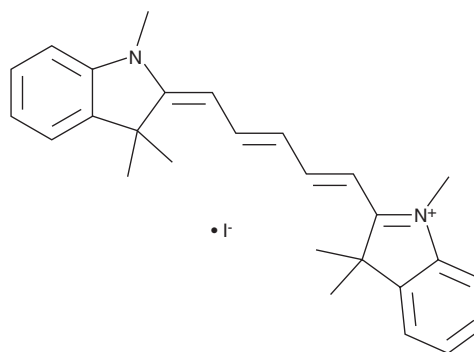
PRODUCT INFORMATION



DiIC1(5)

Item No. 26861

CAS Registry No.: 36536-22-8
Formal Name: 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadien-1-yl]-1,3,3-trimethyl-3H-indolium, monoiodide
MF: C₂₇H₃₁N₂ • I
FW: 510.5
Purity: ≥98%
UV/Vis.: λ_{max}: 287, 647 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DiIC1(5) is supplied as a crystalline solid. A stock solution may be made by dissolving the DiIC1(5) in the solvent of choice. DiIC1(5) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DiIC1(5) in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of DiIC1(5) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DiIC1(5) in PBS, pH 7.2, is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DiIC1(5) is a signal-off fluorescent probe for the detection of mitochondrial membrane potential disruption.^{1,2} It accumulates in mitochondria and its fluorescence intensity decreases when the mitochondrial membrane potential is disrupted. DiIC1(5) has been used in combination with a variety of cell damage and cell death markers to classify nine stages of cell death using flow cytometry.³ It has also been used as a quencher for the detection of serine phosphorylation and tyrosine dephosphorylation post-translational modifications (PTMs) in quenching resonance energy transfer (QRET) and mTR-FRET applications.² It displays excitation/emission maxima of 659/666 nm, respectively.

References

1. Lee, S.T., Hoeflich, K.P., Wasfy, G.W., *et al.* Bcl-2 targeted to the endoplasmic reticulum can inhibit apoptosis induced by Myc but not etoposide in Rat-1 fibroblasts. *Oncogene* **18(23)**, 3520-3528 (1999).
2. Kopra, K., Eskonen, V., Seppälä, T., *et al.* Peptic fluorescent “signal-on” and “signal-off” sensors utilized for the detection protein post-translational modifications. *ACS Omega* **4(2)**, 4269-4275 (2019).
3. Munoz, L.E., Maueröder, C., Chaurio, R., *et al.* Colourful death: Six-parameter classification of cell death by flow cytometry—dead cells tell tales. *Autoimmunity* **46(5)**, 336-341 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM