

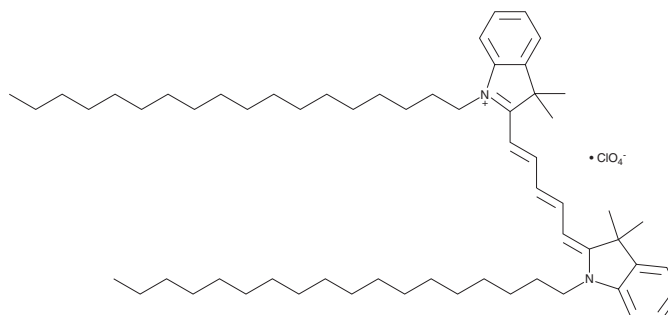
PRODUCT INFORMATION



DiD

Item No. 29115

CAS Registry No.: 127274-91-3
Formal Name: 2-[5-(1,3-dihydro-3,3-dimethyl-1-octadecyl-2H-indol-2-ylidene)-1,3-pentadien-1-yl]-3,3-dimethyl-1-octadecyl-3H-indolium, monoperchlorate
Synonyms: D 307, DiIC18(5), NK 3175
MF: C₆₁H₉₉N₂ • ClO₄
FW: 959.9
Purity: ≥90%
UV/Vis.: λ_{max}: 648 nm
Ex./Em. Max: 650/670 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

DiD is supplied as a crystalline solid. A stock solution may be made by dissolving the DiD in the solvent of choice, which should be purged with an inert gas. DiD is soluble in the organic solvent methanol.

Description

DiD is a lipophilic fluorescent probe.¹ It is rapidly incorporated into phospholipid cell membranes and has been used to label the plasma membrane and endocytic organelles in bovine aorta endothelial cells and rat hippocampal slices.¹⁻³ DiD has also been used to assess proliferation in prostate cancer cell lines by flow cytometry, where high DiD-expressing cell populations are associated with lower proliferation.¹ DiD is not cytotoxic and can be detected in subcutaneously implanted PC3 cells *in vivo* after three weeks. It displays absorption/emission maxima of 650/670 nm, respectively.⁴

References

1. Yumoto, K., Berry, J.E., Taichman, R.S., *et al.* A novel method for monitoring tumor proliferation *in vivo* using fluorescent dye DiD. *Cytometry A*. **85(6)**, 548-555 (2014).
2. Dailey, M.E. and Waite, M. Confocal imaging of microglial cell dynamics in hippocampal slice cultures. *Methods* **18(2)**, 222-230 (1999).
3. Lin, C.P., Lynch, M.C., and Kochevar, I.E. Reactive oxidizing species produced near the plasma membrane induce apoptosis in bovine aorta endothelial cells. *Exp. Cell Res.* **259(2)**, 351-359 (2000).
4. Ribeiro, T., Raja, S., Rodrigues, A.S., *et al.* NIR and visible perylenediimide-silica nanoparticles for laser scanning bioimaging. *Dyes Pigments* **110**, 227-234 (2014).

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