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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION

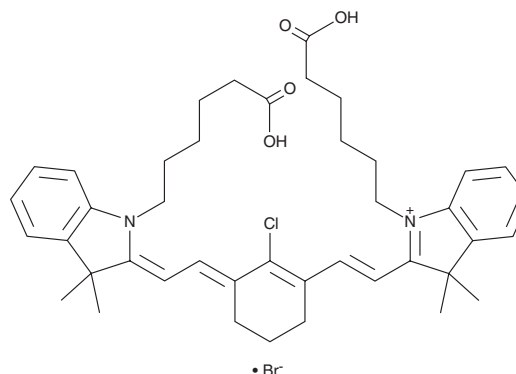


MH 148

Item No. 31634

CAS Registry No.: 172971-76-5
Formal Name: 1-(5-carboxypentyl)-2-[2-[3-[2-[1-(5-carboxypentyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-3H-indolium, monobromide

Synonym: IR 808
MF: C₄₂H₅₂ClN₂O₄ • Br
FW: 764.2
Purity: ≥95%
Ex./Em. Max: 782/808nm
Supplied as: A 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

MH 148 is supplied as a solid. A stock solution may be made by dissolving the MH 148 in the solvent of choice, which should be purged with an inert gas. MH 148 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MH 148 in ethanol is approximately 10 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 MH 148 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of MH 148 in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

MH 148 is a near-infrared heptamethine cyanine dye.¹ It displays excitation/emission maxima at 782 and 808 nm, respectively. MH 148 has been used for tumor imaging, conjugated to anticancer agents to improve solubility and tumor targeting, as well as incorporated into bimetallic nanoparticles for antitumor phototherapy in mice.^{2,3}

References

1. Chen, X., Peng, X., Cui, A., *et al.* Photostabilities of novel heptamethine 3H-indolenine cyanine dyes with different N-substituents. *J. Photochem. Photobiol. A Chem.* **181**(1), 79-85 (2006).
2. Raveendran, A., Surendran, S.P., Ser, J., *et al.* Heptamethine cyanine dye MHI-148-mediated drug delivery system to enhance the anticancer efficiency of paclitaxel. *Int. J. Nanomedicine* **16**, 7169-7180 (2021).
3. Jia, P., Ji, H., Liu, S., *et al.* Integration of IR-808 and thiol-capped Au-Bi bimetallic nanoparticles for NIR light mediated photothermal/photodynamic therapy and imaging. *J. Mater. Chem. B.* **9**(1), 101-111 (2021).

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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