

PRODUCT INFORMATION



TMA-DPH

Item No. 17294

CAS Registry No.: 115534-33-3
Formal Name: N,N,N-trimethyl-4-(6-phenyl-1,3,5-hexatrien-1-yl)-benzenaminium, 4-methylbenzenesulfonate

Synonym: N,N,N-Trimethyl-4-(6-phenyl-1,3,5-hexatrien-1-yl)phenylammonium (p-toluenesulfonate)

MF: C₂₁H₂₄N • C₇H₇O₃S

FW: 461.6

Purity: ≥95%

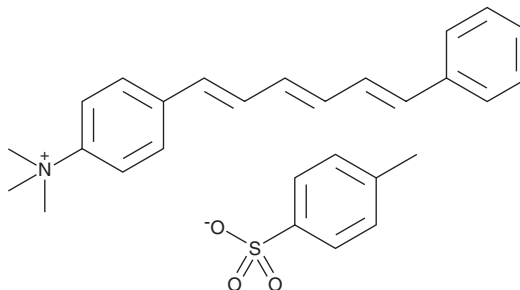
UV/Vis.: λ_{max}: 220, 258, 376 nm

Ex./Em. Max: 355/430 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

TMA-DPH is supplied as a crystalline solid. A stock solution may be made by dissolving the TMA-DPH in the solvent of choice, which should be purged with an inert gas. TMA-DPH is soluble in organic solvents such as methanol, DMSO, and dimethyl formamide (DMF). The solubility of TMA-DPH in methanol and DMF is approximately 1 mg/ml and approximately 10 mg/ml in DMSO.

Description

TMA-DPH is a fluorescent probe used for measuring membrane fluidity in artificial and living membrane systems.¹⁻⁴ The cylindrical shape of TMA-DPH confers high sensitivity to reorientation resulting from changes in surrounding lipids. TMA-DPH has excitation and emission maxima at 355 and 430 nm, respectively.

References

1. Subramanian, V., Knight, J.S., Parelkar, S., *et al.* Design, synthesis, and biological evaluation of tetrazole analogs of cl-amidine as protein arginine deiminase inhibitors. *J. Med. Chem.* **58**(3), 1337-1344 (2015).
2. Illinger, D. and Kurhy, J.-G. The kinetic aspects of intracellular fluorescence labeling with TMA-DPH support the maturation model for endocytosis in L929 cells. *J. Cell Biol.* **125**(4), 783-794 (1994).
3. Illinger, D., Duportail, G., Mely, Y., *et al.* A comparison of the fluorescence properties of TMA-DPH as a probe for plasma membrane and for endocytic membrane. *Biochim. Biophys. Acta* **1239**(1), 58-66 (1995).
4. Chazotte, B. Labeling the plasma membrane with TMA-DPH. *Cold Spring Harb. Protoc.* **2011**(5), (2011).

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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