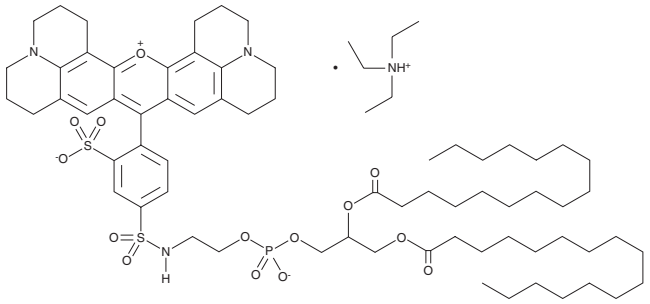
PRODUCT INFORMATION

Sulforhodamine 101 DHPE

Item No. 23235

CAS Registry No.: 187099-99-6
Formal Name: 2,3,6,7,12,13,16,17-octahydro-9-[4-[[[(7R)-4-hydroxy-4-oxido-10-oxo-7-[(1-oxohexadecyl)oxy]-3,5,9-trioxa-4-phosphapentacos-1-yl]amino]sulfonyl]-2-sulfophenyl]-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, inner salt, compd. with N,N-diethylethanamine (1:1)
MF: $C_{68}H_{101}N_3O_{14}PS_2 \bullet C_6H_{16}N$
FW: 1,381.9
Purity: ≥95%
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

Sulforhodamine 101 DHPE is supplied as a solid. A stock solution may be made by dissolving the sulforhodamine 101 DHPE in the solvent of choice, which should be purged with an inert gas. Sulforhodamine 101 DHPE is soluble in the organic solvent DMSO.

Description

Sulforhodamine 101 DHPE is a fluorescent probe made from the conjugation of the phospholipid 1,2-dipalmitoyl-*sn*-glycero-3-PE (Item No. 15092) to sulforhodamine 101 (Item No. 16953), a red fluorescent dye that displays excitation/emission spectra of 586/605 nm, respectively.[1,2] It integrates into phospholipid bilayers and has been used for imaging of solid supported lipid bilayers, detection of protein-ligand binding on bilayers, and to monitor colocalization of lipid probes in liposomes *via* resonance energy transfer (RET).[1,3,4]

References

1. Jung, H., Robison, A.D., and Cremer, P.S. Detecting protein-ligand binding on supported bilayers by local pH modulation. *J. Am. Chem. Soc.* **131(3)**, 1006-1014 (2009).
2. Nimmerjahn, A., Kirchhoff, F., Kerr, J.N., *et al.* Sulforhodamine 101 as a specific marker of astroglia in the neocortex *in vivo*. *Nat. Methods* **1(1)**, 31-37 (2004).
3. Castellana, E.T. and Cremer, P.S. Imaging large arrays of supported lipid bilayers with a macroscope. *Biointerphases* **2(2)**, 57-63 (2007).
4. Uster, P.S. and Pagano, R.E. Resonance energy transfer microscopy: Visual colocalization of fluorescent lipid probes in liposomes. *Methods Enzymol.* **171**, 850-857 (1989).

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