TRITC-DHPE

Cat. No.: HY-D1671

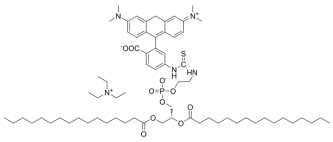
Molecular Formula: $C_{69}H_{111}N_5O_{10}PS$

Molecular Weight: 1233.69

Target: Fluorescent Dye

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

TRITC-DHPE is a rhodamine-labeled glycerophosphate ethanolamine lipid, with head groups marked with bright red fluorescent TRITC dye (λEx/λEm=514/580 nm). TRITC-DHPE can be used for membrane fusion assay to trace lipid processing in intracellular phagocytosis. TRITC-DHPE can serves as an energy transfer receptor for NBD, BODIPY and fluorescein lipid probes[1][2].

In Vitro

TRITC-DHPE can be served as a unilamellar liposome, and labels cells[1].

Protocol of flow cytometry assay[1]:
1.Dissolve TRITC-DHPE probe in ethanol;
2.Sonicate and dilute the probe with electroporation buffer and sonicate the probe again, prepare the probe final stock concentration of 4.6 μM;
3.Add 15 mL probe stock solution into a T-75 flask, label cells at 37 ⊠ for 2.5 h;
4.Wash cells twice with PBS, trypsinize cells, and wash cells again prior to analysis;
5.Pellet and resuspend cells in Ca^{2+}-, Mg^{2+}-free PBS, analyze via flow cytometry with 514 nm laser excitation and 585/42 nm filter;
6.Adjust aqueous suspension with pH range of 4-6.5;
7.Construct TRITC-DHPE pH-independent emission standard curves and set the excitation wavelength at 514 nm, set emission wavelength at 580 nm, and slit widths of 4 nm.

Protocol of TRITC-DHPE preparation[2]:
1.Store TRITC-DHPE in chloroform (1 mg/ml, stock);
2.Dry dye stock solution (1-5 μL) into a film immediately before use, and reconstitute in 20–100 μL of ethanol;
3.Incubate cells with a final concentration of 100 nM-1 μM for 5-10 min at 22 ⊠ in supplemented RPMI 1640 media with FCS;
4.The maximum concentration of ethanol during incubation was 1% v/v.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Glogauer M, et al. Induced endocytosis in human fibroblasts by electrical fields. Exp Cell Res. 1993 Sep;208(1):232-40.

[2]. Nishimura SY, et al. Cholesterol depletion induces solid-like regions in the plasma membrane. Biophys J. 2006 Feb 1;90(3):927-38.

Caution: Product has not been fully validated for medical applications. For research use only.

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