

BrDIPY 665/676

Lipid Peroxidation Sensor

Product Information

Name	BrDIPY 665/676 (Lipid Peroxidation Sensor) 5,5-Difluoro-3,7-bis((1E,3E)-4-phenylbuta-1,3-dien-1-yl)-5H-4[4,5]dipyrrolo[1,2-c:2',1'-f][1,3,2]diazaborinine
Catalog Number	FP-372004, 1 mg FP-372005, 5 mg
CAS	164106-16-5
Purity	>99%
Molecular Weight	448.31
Storage	-20°C Keep in dark place, sealed in dry, store in freezer

Directions for use

We recommend performing three control reactions:

1. Preparation of BrDIPY 665/676 Working Solution

1.1 Stock Solution

Dissolve 1 mg of BrDIPY 665/676 in 223 µL of DMSO to prepare a 10 mM stock solution.
Storage: Keep the stock solution at -20°C or -80°C, protected from light. Avoid repeated freeze–thaw cycles.

1.2 Working Solution

Dilute the stock solution in serum-free cell culture medium or PBS to obtain a final concentration of 1–10 µM.

Note: Adjust the working concentration according to experimental requirements.

2. UV-Irradiation-Induced Radical Reactions

2.1 Oils Tested: Medium-chain triglyceride (MCT) oil and Linseed oil (LSO)

a. Perform fluorometric measurements of UV-induced radical reactions using a spectrofluorometer.

b. Irradiate:

- Control: Oil + 1 µM BrDIPY 665/676
- Sample: Oil + 1 µM BrDIPY 665/676 + 5.7 µM Di-tert-butyl peroxide (DTBP) for specified time intervals.

c. Quantify oxidation by:

- Decrease in fluorescence intensity at Ex 675 nm
- Increase in fluorescence intensity at Ex 580 nm compared to non-irradiated controls. Measurements should be performed in triplicate.

Precautions

- Adjust BrDIPY 665/676 working concentration as needed.
- Handle samples containing unsaturated fatty acids under nitrogen atmosphere.
- For research use only – not for drug, household, or other applications.
- Wear lab coat and disposable gloves for safety.

References

Yang S. *et al.* Droplet size dependency and spatial heterogeneity of lipid oxidation in whey protein isolate-stabilized emulsions, Food Research International, 188, 114341 (2024) [article](#)

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>

Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

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