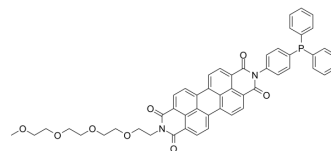


## LPd peroxida probe

<b>Cat. No.:</b>	HY-D1412
<b>CAS No.:</b>	1448846-35-2
<b>Molecular Formula:</b>	C <sub>51</sub> H <sub>41</sub> N <sub>2</sub> O <sub>8</sub> P
<b>Molecular Weight:</b>	840.85
<b>Target:</b>	Ferroptosis
<b>Pathway:</b>	Apoptosis
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 8.5 mg/mL (10.11 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.1893 mL	5.9464 mL	11.8927 mL
5 mM	0.2379 mL	1.1893 mL	2.3785 mL
10 mM	0.1189 mL	0.5946 mL	1.1893 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

LPd peroxida probe, a marker of ferroptosis, is a useful fluorescent probe for investigating the roles of lipid peroxidation in a variety of cell pathophysiology. LPd peroxida probe reduces lipid hydroperoxides to lipid alcohols and is used for imaging lipid hydroperoxides in living cells<sup>[1][2][3]</sup>.

#### In Vitro

Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).

- Cells in the glass bottom dish are treated with 50 μM of H<sub>2</sub>O<sub>2</sub> in RPMI 1640 for 2 h at 37 °C. After removing H<sub>2</sub>O<sub>2</sub>, cells are washed with Hank's balanced salt solution (HBSS) three times.
- Cells are then treated with 10 μM of LPd peroxida probe in HBSS for 30 min at 37 °C. After removing LPd peroxida probe, cells are washed with HBSS three times.
- Fluorescence images are obtained using a BZ-8000 fluorescence microscope from 3 separate dishes for each treatment<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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- [1]. Kazuo Tomita, et al. MiR-7-5p Is Involved in Ferroptosis Signaling and Radioresistance Thru the Generation of ROS in Radioresistant HeLa and SAS Cell Lines. *Int J Mol Sci.* 2021 Aug 2;22(15):8300.
- [2]. Elizabeth M Kenny, et al. Ferroptosis Contributes to Neuronal Death and Functional Outcome After Traumatic Brain Injury. *Crit Care Med.* 2019 Mar;47(3):410-418.
- [3]. Kazunori Yamanaka, et al. A novel fluorescent probe with high sensitivity and selective detection of lipid hydroperoxides in cells. *RSC Advances*, 2012, 2, 7894–7900.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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