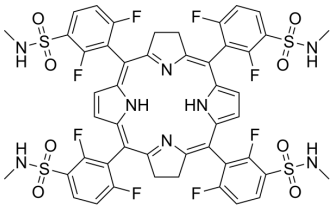
Redaporfin

Cat. No.:	HY-17644
CAS No.:	1224104-08-8
Molecular Formula:	$C_{48}H_{38}F_8N_8O_8S_4$
Molecular Weight:	1135.11
Target:	Reactive Oxygen Species
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (88.10 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.8810 mL	4.4049 mL	8.8097 mL
	5 mM	0.1762 mL	0.8810 mL	1.7619 mL
	10 mM	0.0881 mL	0.4405 mL	0.8810 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 6.25 mg/mL (5.51 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 6.25 mg/mL (5.51 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6.25 mg/mL (5.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Redaporfin (LUZ11) acts as a potent photosensitizer. Redaporfin causes direct antineoplastic effects as well as indirect immune-dependent destruction of malignant lesions[1].

In Vitro

The combination photodynamic therapy (PDT) with Redaporfin (5μM) induces a reduction in the abundance of several Golgi apparatus (GA) proteins such as Golgi brefeldin A-resistant guanine nucleotide exchange factor 1 (GBF1), golgin subfamily A member 2 (GOLGA2), and galactosyltransferase 1 (GALT1), as well as that of two ER proteins, eukaryotic translation initiation factor 2-alpha (eIF2α) kinase 3 (EIF2AK3) and protein disulfide-isomerase A3 (PDIA3). In contrast, there is no major decrease

in mitochondrial import receptor subunit TOM20 homolog (TOMM20) or in the cytoskeleton protein β-actin[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	Human osteosarcoma U2OS cells
Concentration:	0.3, 0.6, 1.3, 2.5, 5, 10 μM
Incubation Time:	6 hours
Result:	Induced a reduction in the abundance of GBF1, GOLGA2, and GALT1, as well as EIF2AK3 and PDIA3.

REFERENCES

[1]. Lígia C Gomes-da-Silva, et al. Photodynamic therapy with redaporfin targets the endoplasmic reticulum and Golgi apparatus. EMBO J. 2018 Jul 2;37(13):e98354.

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