



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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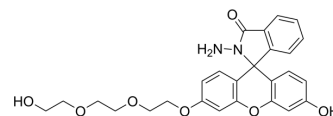
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## FHZ

Cat. No.:	HY-U00440
CAS No.:	1883737-63-0
Molecular Formula:	C <sub>26</sub> H <sub>26</sub> N <sub>2</sub> O <sub>7</sub>
Molecular Weight:	478.49
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (208.99 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		2.0899 mL	10.4495 mL	20.8991 mL
	5 mM		0.4180 mL	2.0899 mL	4.1798 mL
	10 mM		0.2090 mL	1.0450 mL	2.0899 mL

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

### BIOLOGICAL ACTIVITY

#### Description

FHZ is a fluorescent probe.

#### In Vitro

After loaded with probe FHZ and treated with HClO and H<sub>2</sub>O<sub>2</sub>/EDTA-Fe<sup>2+</sup> in order, HeLa cells display the bright fluorescences from both cyan and green channels. FHZ can give out two different fluorescent signals in the presence of both  $\cdot$ OH and HClO, suggesting the synchronous discrimination of  $\cdot$ OH and HClO by a dual-channel detection model with two exciting wavelengths. Probe FHZ shows very high specificity to the detections of  $\cdot$ OH and HClO with the excitations at 410 and 490 nm, respectively. The probe FHZ can efficiently enter the cellular mitochondria and exhibit the differentiable/visual capabilities to the endogenous  $\cdot$ OH and HClO by the dual fluorescent responses<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Probe FHZ can rapidly be absorbed into the blood circulation system from the zebrafish intestine, and spread out whole zebrafish tissues, and keep its stability in the blood, organs and tissues in the absence of ROS. The probe can keep its stability in biological environments and only selectively react with  $\cdot$ OH and HClO species<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## PROTOCOL

### Cell Assay <sup>[1]</sup>

HeLa cells and RAW264.7 macrophages are cultured in high glucose Dulbecco's modified Eagle's medium (DMEM) supplied with 10% fetal bovine serum (FBS) and 1% antibiotics (penicillin and streptomycin) at 37°C in humidified incubator containing 5% CO<sub>2</sub>. The cells are seeded into glass-bottomed dishes and cultured for 24 h. Subsequently, the cells are incubated with FHZ for 30 min at 37°C and then washed with PBS buffer three times. Each treatment of cells with H<sub>2</sub>O<sub>2</sub>, EDTA-Fe<sup>2+</sup>, HClO or scavengers kept 30 min<sup>[1]</sup>.

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

### Animal Administration <sup>[1]</sup>

Wild type zebrafish is used in this study. Seven-day old fertilized zebrafish embryos are cultured in 50 μM FHZ for 30 min, and then the zebrafish embryos are transferred to fresh water. A FHZ-loaded zebrafish is fixed under confocal microscope using 2% agarose gel to keep its living state for fluorescent imaging. In order to observe the release of •OH in fresh wound, the ventral fin of the FHZ-loaded zebrafish is carefully cut a small wound using a blade. After raised for 20 min in water, the wound of injured zebrafish is imaged using confocal microscope<sup>[1]</sup>.

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

## REFERENCES

[1]. Zhang R, et al. Real-Time Discrimination and Versatile Profiling of Spontaneous Reactive Oxygen Species in Living Organisms with a Single Fluorescent Probe. J Am Chem Soc. 2016 Mar 23;138(11):3769-78.

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

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