WSP-1

Cat. No.: HY-124409

CAS No.: 1352750-34-5

Molecular Formula: $C_{33}H_{21}NO_6S_2$

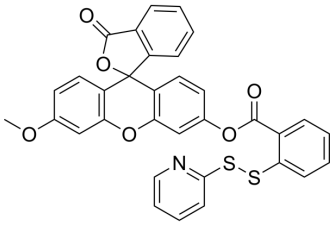
Molecular Weight: 591.65

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 : 25 mg/mL (42.25 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6902 mL	8.4509 mL	16.9019 mL
	5 mM	0.3380 mL	1.6902 mL	3.3804 mL
	10 mM	0.1690 mL	0.8451 mL	1.6902 mL

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

BIOLOGICAL ACTIVITY

Description

WSP-1 is a selective and rapid-reaction H_2S specific fluorescent dye (Ex/Em=465/515 nm). WSP-1 reacts with H_2S with the releasing of fluorophore[1].

In Vitro

WSP-1 have fluorescence properties, with excitation wavelength=465 nm, emission spectrum=515 nm[1].
Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).
Fluorimetric Detection of Intracellular H_2S (Fluorimetric Microscope Assessment)[1]:
1. Culture HASMCs up to about 90% confluence, and 24 h before the experiment, seed cells onto a 8-well culture slide at density of $30*10^3$ per well and culture for 24 hours.
2. Replace the culture medium, and incubate the cells for 30 min at 37°C in 400 μL per well WSP-1 working solution for 30 min.
3. Replace the WSP-1 working solution with 380 μL of buffer standard and add 20 μL of the tested H2S-donor compounds at the desired concentration.
4. When WSP-1 reacts with H_2S, it releases a fluorophore detect able at Ex/Em=465/515 nm. Remove the buffer standard, and wash with 400 μL of DPBS after 1 h incubation.
5. Remove the DPBS, and add 200 μL of Bouin solution per well for 10 min at room temperature to fix the cells. Remove the excess of Bouin solution and wash the cells twice with 400 μL of DPBS.

6. Acquire the fluorescence signal with a fluorescence microscope.

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

REFERENCES

[1]. Martelli A, et al. Vascular Effects of H2S-Donors: Fluorimetric Detection of H2S Generation and Ion Channel Activation in Human Aortic Smooth Muscle Cells. Methods Mol Biol. 2019;2007:79-87.

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