



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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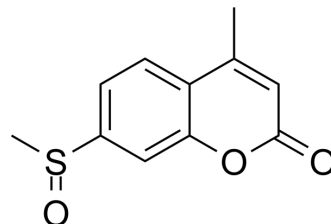
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## Msr-blue

Cat. No.:	HY-D1256
CAS No.:	2966537-39-1
Molecular Formula:	C <sub>11</sub> H <sub>10</sub> O <sub>3</sub> S
Molecular Weight:	222.26
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 (112.48 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	4.4992 mL	22.4962 mL	44.9924 mL
				5 mM	0.8998 mL	4.4992 mL	8.9985 mL
				10 mM	0.4499 mL	2.2496 mL	4.4992 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: ≥ 2.5 mg/mL (11.25 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (11.25 mM); Suspended solution; Need ultrasonic						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (11.25 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	Msr-blue is a first turn-on fluorescent probe for methionine sulfoxide reductase with a more than 100-fold fluorescence increment. Msr-blue is used for monitoring the enzyme activity in live cells ( $\lambda_{ex}$ =340 nm, $\lambda_{em}$ =440 nm) <sup>[1]</sup> .
In Vitro	Msr-blue is emitted blue fluorescence after activation by methionine sulfoxide reductase A (Msr A). Msr-blue responded to Msr A in both a time- and dose-dependent manner, and more than a 100-fold increase in the emission is observed. Msr-blue is converted to its corresponding sulfide (15') under catalysis by either the purified Msr A or a cell lysate <sup>[1]</sup> . The 6-OHDA-treated PC12 cells as a cellular model of Parkinson's disease (PD) is employed and applied Msr-blue to probe the function of Msrs in the cells. With the aid of Msr-blue, a decline of the Msr activity in a PD model was disclosed for the first time <sup>[1]</sup> .

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

## REFERENCES

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[1]. Liangwei Zhang, et al. A specific fluorescent probe reveals compromised activity of methionine sulfoxide reductases in Parkinson's disease. Chem Sci. 2017 Apr 1;8(4):2966-2972.

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

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