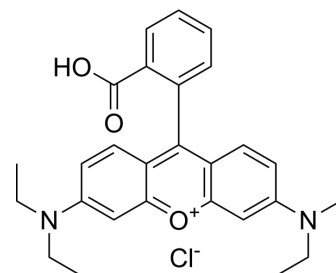


## Rhodamine B

<b>Cat. No.:</b>	HY-Y0016
<b>CAS No.:</b>	81-88-9
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>31</sub> ClN <sub>2</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	479.01
<b>Target:</b>	Fluorescent Dye
<b>Pathway:</b>	Others
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 2 years; -20°C, 1 year (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (260.95 mM; Need ultrasonic)  
H<sub>2</sub>O : 100 mg/mL (208.76 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.0876 mL	10.4382 mL	20.8764 mL
	5 mM	0.4175 mL	2.0876 mL	4.1753 mL
	10 mM	0.2088 mL	1.0438 mL	2.0876 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 5 mg/mL (10.44 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (4.34 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Rhodamine B is a staining fluorescent dye, commonly used for dyeing textiles, paper, soap, leather, and agents.

#### In Vitro

Rhodamine B induces a concentration-dependent reduction of root meristem cells of *A. cepa*. mitotic activity. Rhodamine B induces various nuclear aberrations in *A. cepa*. root cells. In the 100 and 200 ppm rhodamine B groups, the frequencies of NBUDs and BN surpass those of the positive control (MMS) group. Rhodamine B-induced changes of H<sub>2</sub>O<sub>2</sub> (a) and MDA (b) level increase in a concentration-dependent manner in *A. cepa*. roots<sup>[1]</sup>.

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

---

## CUSTOMER VALIDATION

- ACS Nano. 2024 Mar 15.
- Chem Eng J. 2020, 127870.
- EMBO J. 2020 Sep 15;39(18):e104365.
- Biomed J. 2023 Mar 31;S2319-4170(23)00029-X.
- ACS Omega. 2022.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

---

## REFERENCES

[1]. Tan D, et al. Rhodamine B induces long nucleoplasmic bridges and other nuclear anomalies in Allium cepa root tip cells. Environ Sci Pollut Res Int. 2014 Mar;21(5):3363-70.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA