Bromobimane

Cat. No.: HY-100041

CAS No.: 71418-44-5

Molecular Formula: $C_{10}H_{11}BrN_2O_2$

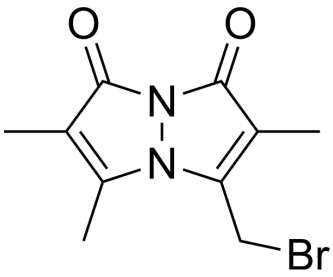
Molecular Weight: 271.11

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 : ≥ 86.6 mg/mL (319.43 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6885 mL	18.4427 mL	36.8854 mL
5 mM	0.7377 mL	3.6885 mL	7.3771 mL
10 mM	0.3689 mL	1.8443 mL	3.6885 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: ≥ 2.08 mg/mL (7.67 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Bromobimane (Monobromobimane) is a nonfluorescent and converts into fluorescent products when reacts with thiols. Bromobimane has potential applications in labeling thiols[1][2].

In Vitro

Bromobimane (mBBr) labeled reactive thiols in cells[1]

(1) Prepare a 100 mM mBBr solution with acetonitrile.

(2) Add 1 mL of 10% cell suspension to 15-25 μL of 100 mM mBBr solution.

(3) After incubation at 37°C for 30-45 min, fluorescence detection was performed.

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

CUSTOMER VALIDATION

- Nat Chem. 2022 Dec 22.
- Free Radic Biol Med. 2022 Nov 3;193(Pt 1):459-473.
- Cell Stress Chaperones. 2022 Dec 13.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kosower EM, et al. Bromobimane probes for thiols. Methods Enzymol. 1995;251:133-48.

[2]. Newton GL, et al. Determination of biothiols by bromobimane labeling and high-performance liquid chromatography. Methods Enzymol. 1995;251:148-66.

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

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