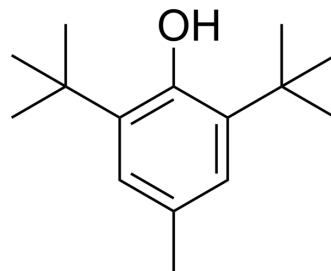


Butylated hydroxytoluene

Cat. No.:	HY-Y0172
CAS No.:	128-37-0
Molecular Formula:	C ₁₅ H ₂₄ O
Molecular Weight:	220.35
Target:	Ferroptosis; Endogenous Metabolite
Pathway:	Apoptosis; Metabolic Enzyme/Protease
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (453.82 mM; Need ultrasonic)
H₂O : 1 mg/mL (4.54 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	4.5382 mL	22.6912 mL
	5 mM	0.9076 mL	4.5382 mL	9.0765 mL	
	10 mM	0.4538 mL	2.2691 mL	4.5382 mL	

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (453.82 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: 2.5 mg/mL (11.35 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (11.35 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (11.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Butylated hydroxytoluene is an antioxidant widely used in foods and in food-related products^[1]. Butylated hydroxytoluene is a Ferroptosis inhibitor^[2].

In Vivo

Butylhydroxytoluene (BHT) is well-known as a potent promoter of carcinogen-induced lung tumors in mice. Butylated hydroxytoluene (orally; 400 mg/kg; weekly) administration increases the susceptibility of 7-week-old rasH2 mice to lung carcinogens^[3]

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

REFERENCES

- [1]. Babich H, et al. Butylated hydroxytoluene (BHT): a review. Environ Res. 1982 Oct;29(1):1-29.
- [2]. Umemura T, et al. Butylhydroxytoluene (BHT) increases susceptibility of transgenic rasH2 mice to lung carcinogenesis. J Cancer Res Clin Oncol. 2001 Oct;127(10):583-90.
- [3]. Stockwell BR, et al. Ferroptosis: A Regulated Cell Death Nexus Linking Metabolism, Redox Biology, and Disease. ell. 2017 Oct 5;171(2):273-285.
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Caution: Product has not been fully validated for medical applications. For research use only.

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