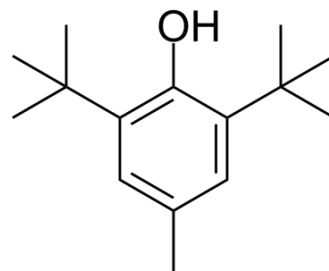


Butylated hydroxytoluene

Cat. No.:	HY-Y0172
CAS No.:	128-37-0
Molecular Formula:	C ₁₅ H ₂₄ O
Molecular Weight:	220.35
Target:	Ferroptosis
Pathway:	Apoptosis
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)					
	H ₂ O : < 0.1 mg/mL (insoluble)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	4.5382 mL	22.6912 mL	45.3823 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	1. 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					
	2. 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					
	3. 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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