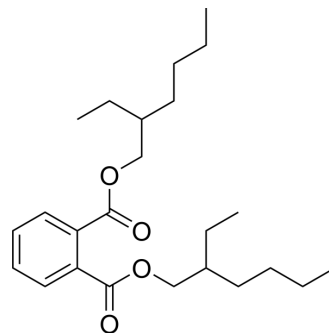


DEHP

Cat. No.:	HY-B1945
CAS No.:	117-81-7
Molecular Formula:	C ₂₄ H ₃₈ O ₄
Molecular Weight:	390.56
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 150 mg/mL (384.06 mM; Need ultrasonic)					
	0.1 M NaOH : 6.67 mg/mL (17.08 mM; ultrasonic and warming and adjust pH to 10 with 0.1 M NaOH and heat to 60°C)					
	H ₂ O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		2.5604 mL	12.8021 mL	25.6043 mL
5 mM			0.5121 mL	2.5604 mL	5.1209 mL	
10 mM			0.2560 mL	1.2802 mL	2.5604 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: ≥ 1.25 mg/mL (3.20 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (3.20 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	DEHP (Bis(2-ethylhexyl) phthalate) is a widely used plasticizer, which has orally active. DEHP can produce a wide spectrum of toxic effects on organisms including neurotoxicity, liver toxicity, immunotoxicity, and reproductive toxicity ^{[1][2]} .	
In Vitro	DEHP (0-160 μM, 48 h) dramatically inhibits cell viability in mouse GC-1 spg cells ^[1] . DEHP (0-160 μM, 48 h) induces autophagy and apoptosis of mouse GC-1 spg cells via oxidative stress ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis ^[1]	
	Cell Line:	Mouse GC-1 spg cells

	Concentration:	0-160 μ M
	Incubation Time:	48 h
	Result:	Decreased Bcl-2 level. Increased the levels of Bax, cleaved Caspase-3, and cleaved Caspase-8. Increased the levels of LC3-II, Beclin1, and Atg5, as well as the ratio of LC3-II/LC3-I.
In Vivo	DEHP (0-500 mg/kg, p.o., daily, 8 weeks) impairs fertility of female C3H/N mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female C3H/N mice ^[1]
	Dosage:	0-500 mg/kg
	Administration:	p.o., daily, 8 weeks
	Result:	Increased the body weight and visceral fat tissue. Increased the expression of PPAR α and PPAR γ mRNA at the dose of 500 mg/kg. Decreased mRNA expression of PPAR α transcripts/106 18S molecules at the dose of 500 mg/kg. Reduced the level of adiponectin mRNA. Increased the mRNA concentration of FABP4 at the dose of 0.05 mg/kg.

CUSTOMER VALIDATION

- Sci Total Environ. 2022 Jun 21;156815.

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REFERENCES

- [1]. Gan Y, et al. Di-2-ethylhexyl phthalate (DEHP) induces apoptosis and autophagy of mouse GC-1 spg cells. Environ Toxicol. 2020 Feb;35(2):292-299.
- [2]. Schmidt JS, et al. Effects of di(2-ethylhexyl) phthalate (DEHP) on female fertility and adipogenesis in C3H/N mice. Environ Health Perspect. 2012 Aug;120(8):1123-9.

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

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