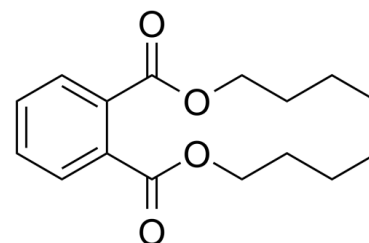


Data Sheet

Product Name:	Dibutyl phthalate
Cat. No.:	CS-0013564
CAS No.:	84-74-2
Molecular Formula:	C ₁₆ H ₂₂ O ₄
Molecular Weight:	278.34
Target:	Others
Pathway:	Others
Solubility:	Ethanol : ≥ 50 mg/mL (179.64 mM)



BIOLOGICAL ACTIVITY:

Dibutyl phthalate is a commonly used plasticizer commonly found in some food packaging materials, personal care products, and the coating of oral medications^[1]. May cause toxicity and adverse neurobehavioral effects^{[2][3]}. **In Vitro:** Dibutyl phthalate (0.001 µg/mL-1000 µg/mL) is detrimental to follicle growth and viability and results in significant dysregulation of cell cycle and apoptosis gene expression in a dose-specific manner. But MBP does not play a role in Dibutyl phthalate toxicity in follicles exposed in vitro^[1]. **In Vivo:** Dibutyl phthalate (200, 400, or 600 mg/kg/day) induces decrease mice weight, impairment of spermatogenesis, reduces serum follicle stimulating hormone and testosterone level, alters testicular LDH, increases LPO, and decreases the levels of enzymatic antioxidants with histopathological anomalies^[2].

Dibutyl phthalate (6.25, 12.5, 25, 50, 100 and 200 mg/kg) could cause some neurobehavioral adverse effects in mice^[3].

References:

- [1]. Rasmussen LM, et al. Effects of in vitro exposure to dibutyl phthalate, mono-butyl phthalate, and acetyl tributyl citrate on ovarian antral follicle growth and viability. *Biol Reprod.* 2017 May 1;96(5):1105-1117.
- [2]. Aly HA, et al. Dibutyl phthalate induces oxidative stress and impairs spermatogenesis in adult rats. *Toxicol Ind Health.* 2016 Aug;32(8):1467-1477.
- [3]. Farzanehfar V, et al. Determination of dibutyl phthalate neurobehavioral toxicity in mice. *Food Chem Toxicol.* 2016 Aug;94:221-6.

CAIndexNames:

1,2-Benzenedicarboxylic acid, 1,2-dibutyl ester

SMILES:

O=C(C1=CC=CC=C1C(=O)OCCCC)OCCCC

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

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