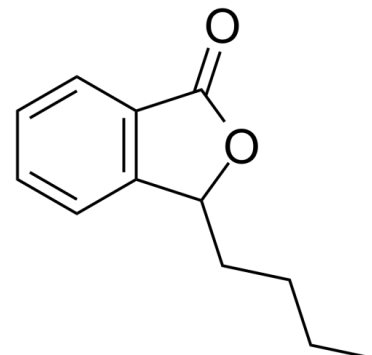


Data Sheet

Product Name:	Butylphthalide
Cat. No.:	CS-3609
CAS No.:	6066-49-5
Molecular Formula:	C ₁₂ H ₁₄ O ₂
Molecular Weight:	190.24
Target:	Others
Pathway:	Others
Solubility:	DMSO : ≥ 56 mg/mL (294.37 mM)



BIOLOGICAL ACTIVITY:

Butylphthalide(3-n-Butylphthalide) is an anti-cerebral-ischemia drug; first isolated from the seeds of celery, showed efficacy in animal models of stroke. IC₅₀ value: Target: 3-n-butylphthalide alleviates oxidative stress caused by chronic cerebral ischemia, improves cholinergic function, and inhibits amyloid beta accumulation, thereby improving cerebral neuronal injury and cognitive deficits [2]. Intra-gastric NBP administration to 4-month-old SAMP8 mice for 2 months significantly improved spatial learning and memory ability. Moreover, the loss of choline acetyltransferase (ChAT)-positive neurons in the medial septal nucleus and the vertical limb of the diagonal band in SAMP8 mice was slowed down, as was the decline in the protein and mRNA expression of ChAT in the hippocampus, cerebral cortex, and forebrain [4].

References:

- [1]. Cui LY, et al. Ninety-day administration of dl-3-n-butylphthalide for acute ischemic stroke: a randomized, double-blind trial. *Chin Med J (Engl)*. 2013;126(18):3405-10.
- [2]. Zhao W, et al. 3-N-butylphthalide improves neuronal morphology after chronic cerebral ischemia. *Neural Regen Res*. 2014 Apr 1;9(7):719-26.
- [3]. Wang X, et al. Design, synthesis and biological evaluation of hydrogen sulfide releasing derivatives of 3-n-butylphthalide as potential antiplatelet and antithrombotic agents. *Org Biomol Chem*. 2014 Aug 21;12(31):5995-6004.
- [4]. Wang F, et al. Improvement of cognitive deficits in SAMP8 mice by 3-n-butylphthalide. *Neurol Res*. 2014 Mar;36(3):224-33.

CAIndexNames:

1(3H)-Isobenzofuranone, 3-butyl-

SMILES:

O=C1OC(CCCC)C2=C1C=CC=C2

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

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