[ Product Information ]

Name: 3-n-Butylphthalide
Catalog No.: CFN90235
Cas No.: 6066-49-5
Purity: > 98%
M.F: C_{12}H_{14}O_2
M.W: 190.24

Physical Description: Oil

Synonyms: Butylphthalide; 3-Butylphthalide; 3-butyl-phthalid; n-Butylphthalide; 3-butyl-1(3H)-Isobenzofuranone.

[ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Spice flavor;
7. Intermediates & Fine Chemicals;
8. Ingredient in supplements;
9. Aromatics;
10. Others.
[Source]
The root of Angelica acutiloba (Sieb. et Zucc.) Kitag.

[Biological Activity or Inhibitors]
DL-3-n-Butylphthalide (NBP), an established natural antioxidant for clinical stroke treatment in China, can reportedly reduce beta-amyloid-induced neuronal toxicity in cultured neuronal cells, and attenuate neurodegenerative changes in aged rats; it can upregulate the vesicular monoamine transporter 2 gene expression in vitro and in vivo; it protects dopaminergic (DA) neurons likely by reducing oxidative stress, offering an alternative neuroprotective medication for Parkinson's disease.[1]

3-n-Butylphthalide may have a protective effect for diabetic brain damage through enhancing VEGF expression to inhibit caspase-3 mediated apoptosis.[2]

3-n-Butylphthalide is a potentially beneficial drug for the treatment of ischemic stroke with multiple actions on different pathophysiological processes, NBP exerts oral anti-platelet and anti-thrombotic efficacy without perturbing systemic hemostasis in rats, and L-NBP is more potent than d- and dl-NBP as antiplatelet agent.[3]

L-Butylphthalide may protect neurons against Abeta-induced neurotoxicity via inhibiting tau protein hyperphosphorylation.[4]

3-n-Butylphthalide, especially its s-(-)-enantiomer, can potently reduce the release of cytochrome c, decrease the activation of caspase-3, and inhibit DNA fragmentation after transient focal cerebral ischemia; the beneficial effects of NBP on cerebral ischemia-induced apoptosis might have important implications for the study and treatment of ischemic cerebrovascular diseases.[5]

[Solvent]
Chloroform, Dichloromethane, DMSO, Acetone.
[**HPLC Method**][6]

Mobile phase: 0.2 M Sodium Dihydrogen Phosphate (pH 4.5) - Acetonitrile=50:50;
Flow rate: 1.0 ml/min;
Column temperature: 30 °C;
The wavelength of determination: 228 nm.

[**Storage**]

2-8°C, Protected from air and light, refrigerate or freeze.

[**References**]


[**Contact**]

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