

Product Name : N-tert-butyl- α -PhenylNitron

Synonyms : (Z)-N-benzylidene-2-Methylpropan-2-amine oxide

Cat No. : M27667

CAS Number : 3376-24-7

Molecular Formula : C₁₁H₁₅NO

Formula Weight : 177.2

Chemical Name : —

Description : N-tert-butyl- α -PhenylNitron inhibits COX2 catalytic activity. N-tert-butyl- α -PhenylNitron possesses potent reactive oxygen species scavenging, anti-inflammatory, neuroprotective, anti-aging, and anti-diabetic activities, and can penetrate the blood-brain barrier. (In Vitro): Treatment of 25-100 μ M N-tert-butyl- α -PhenylNitron significantly reduces 2,2'-azobis (2-amidinopropane) dihydrochloride (AAPH)-induced intracellular ROS accumulation. N-tert-butyl- α -PhenylNitron also attenuates AAPH-induced cytotoxicity, matrix degradation, and apoptosis, inhibiting AAPH-induced ERK/MAPK pathway activation. (In Vivo): In C57Bl/6 mice induced by lipopolysaccharide (LPS), intraperitoneal injection of 100 mg/kg N-tert-butyl- α -PhenylNitron twice a day (on gestational day 8) abolishes LPS-induced lipid peroxidation, nitrate tyrosine residue levels and GSH depletion, and reduces the incidence of external malformations.

Pathway : Immunology/Inflammation

Target : ROS

Receptor : —

Solubility : —

SMILES : CC(C)(C)[N+](\O-)=Cc1ccccc1

Storage : (-20°C)

Stability : \geq 2 years

Reference :

1. Hong XX, et al. New steroidal saponins from the bulbs of *Lilium brownii* var. *viridulum*. Carbohydr Res. 2012 Nov 1;361:19-26.