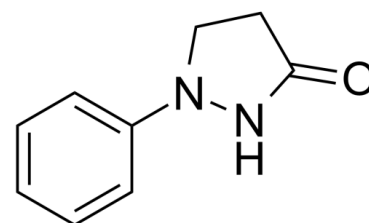


Data Sheet

Product Name:	Phenidone
Cat. No.:	CS-W010860
CAS No.:	92-43-3
Molecular Formula:	C ₉ H ₁₀ N ₂ O
Molecular Weight:	162.19
Target:	COX; Lipoxygenase
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease
Solubility:	DMSO : 100 mg/mL (616.56 mM; Need ultrasonic); H ₂ O : 3.33 mg/mL (20.53 mM; ultrasonic and warming and heat to 60°C)



BIOLOGICAL ACTIVITY:

Phenidone, an orally active dual inhibitor of **cyclooxygenase (COX)** and **lipoxygenase (LOX)**, ameliorates rat paralysis in experimental autoimmune encephalomyelitis. Phenidone is a potent hypotensive agent in the spontaneously hypertensive rat^{[1][2]}. Phenidone is used as a photographic developer^[3]. **In Vitro:** Phenidone significantly inhibits the increases in COX-1/-2 and 5-LOX in the spinal cords of rats with experimental autoimmune encephalomyelitis (EAE)^[1]. **In Vivo:** Phenidone inhibits the formation of vascular lipoxygenase products and to reduce blood pressure in the All-dependent renovascular hypertensive rat^[2].

References:

- [1]. Moon C, et al. Phenidone, a dual inhibitor of cyclooxygenases and lipoxygenases, ameliorates rat paralysis in experimental autoimmune encephalomyelitis by suppressing its target enzymes. *Brain Res.* 2005;1035(2):206-210.
- [2]. Stern N, et al. The lipoxygenase inhibitor phenidone is a potent hypotensive agent in the spontaneously hypertensive rat. *Am J Hypertens.* 1993;6(1):52-58.
- [3]. Petrakiev A, et al. Emission spectral analysis using photographic plates treated with a phenidone developer. *Talanta.* 1969;16(12):1583-1587.

CAIndexNames:

3-Pyrazolidinone, 1-phenyl-

SMILES:

O=C1NN(C2=CC=CC=C2)CC1

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

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