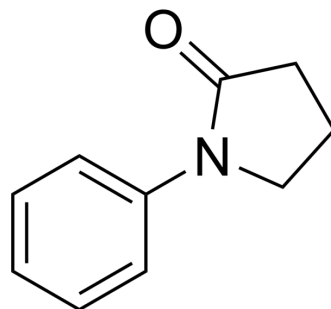


1-Phenyl-2-pyrrolidinone

Cat. No.:	HY-W103463		
CAS No.:	4641-57-0		
Molecular Formula:	C ₁₀ H ₁₁ NO		
Molecular Weight:	161.2		
Target:	GABA Receptor		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (620.35 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	6.2035 mL	31.0174 mL	62.0347 mL
		5 mM	1.2407 mL	6.2035 mL	12.4069 mL
10 mM		0.6203 mL	3.1017 mL	6.2035 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (15.51 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (15.51 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (15.51 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	1-Phenyl-2-pyrrolidinone (1-Phenylpyrrolidin-2-one) is a phenyl analogue of GABA with sedative effect, decreasing the exploratory behavior of rats at 50-100 mg/kg (i.v.). 1-Phenyl-2-pyrrolidinone also has been proved to inhibit emotional reactions in dogs and cats. 1-Phenyl-2-pyrrolidinone induces decreases in the pressor reaction to emotional stress without accompanied by normalization of the function of baroreceptor reflexes ^{[1][2]} .
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REFERENCES

[1]. Patkina N, et al. Some psychotropic effects of phenibut and phenylpyrrolidone. Trudy Volgogradskogo Gosudarstvennogo Meditsinskogo Instituta (1979), 31(3), 63-6.

[2]. Kovalev GV, et al. Effect of γ -aminobutyric acid derivatives on baroreceptor reflexes in nonanesthetized animals. Russian. 1980, (VINITI 1311-80), 10 pp.

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

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