

Pronethalol

Chemical Properties

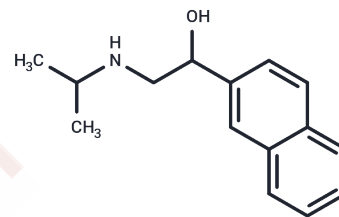
CAS No. : 54-80-8

Formula: C₁₅H₁₉NO

Molecular Weight: 229.32

Storage: Store at low temperature, Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Pronethalol ((±)-Pronethalol), a non-selective β-adrenergic antagonist, effectively inhibits Sox2 expression and offers protection against Digitalis-induced ventricular arrhythmias. Additionally, it can reverse such arrhythmias and limit the development of cerebral arteriovenous malformations (AVMs) [1] [2].
Targets(IC50)	Others, Adrenergic Receptor
In vitro	Pronethalol (2, 10, 20 μM) inhibits EGFP expression in a dose- and time-dependent manner in ReNcell VM cells, with 10 μM reducing Sox2 expression to less than 10% after 2 days of treatment [2].
In vivo	Pronethalol (0.15 mg/g; daily; for 14 days) stabilizes endothelial differentiation and lumen formation, thereby limiting cerebral arteriovenous malformations (AVMs) in Mgp -/- mice [2].

Solubility Information

Solubility	DMSO: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.72 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3607 mL	21.8036 mL	43.6072 mL
5 mM	0.8721 mL	4.3607 mL	8.7214 mL
10 mM	0.4361 mL	2.1804 mL	4.3607 mL
50 mM	0.0872 mL	0.4361 mL	0.8721 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Aroesty JM, et al. Am Heart J. 1966 Apr;71(4):503-508.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481