Data Sheet (Cat.No.T12794)

TargetMol

(S)-Carvedilol

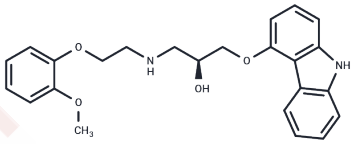
Chemical Properties

CAS No. : 95094-00-1

Formula: C24H26N2O4

Molecular Weight: 406.47

Storage: 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	(S)-Carvedilol is a non-selective β/α-1 blocker.It exerts protection against the vascular or cardiac toxicity of Doxorubicin (DOX).
Targets(IC50)	Others,Adrenergic Receptor
In vitro	(S)-Carvedilol exhibits beta-receptor blocking activity that is approximately 100 times more potent than that of its enantiomer (R)-Carvedilol, though both enantiomers demonstrate equal efficacy as alpha-blockers. Treatment with (S)-Carvedilol markedly enhances the expression of p-eNOS in HUVECs. Additionally, (S)-Carvedilol effectively reduces Doxorubicin (DOX)-induced cell death, apoptotic alterations, and depletion of mitochondrial membrane potential. It also mitigates oxidative stress by increasing superoxide dismutase and catalase activity, while reducing malondialdehyde levels and reactive oxygen species, mediated through the PI3K/AKT/eNOS pathway in vitro.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4602 mL	12.301 mL	24.6021 mL
5 mM	0.492 mL	2.4602 mL	4.9204 mL
10 mM	0.246 mL	1.2301 mL	2.4602 mL
50 mM	0.0492 mL	0.246 mL	0.492 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

Wu T, et al. Protective effects of S-carvedilol on doxorubicin-induced damages to human umbilical vein endothelial cells and rats. J Appl Toxicol. 2019 Aug;39(8):1233-1244.

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