

Product Data Sheet

Product Name: (S)-Carvedilol

Cat. No.: GC60006

Chemical Properties

Cas. No. 95094-00-1

SMILES O[C@@H](CNCCOC1=CC=CC=C1OC)COC2=CC=CC(N3)=C2C4=C3C=CC=C4

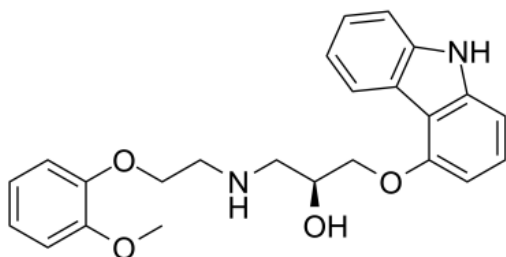
Formula $C_{24}H_{26}N_2O_4$ M.Wt 406.47

Solubility DMSO : 200 mg/mL (492.04 mM; Storage
Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

(S)-Carvedilol, the S-enantiomer of Carvedilol, is a non-selective β/α -1 blocker. (S)-Carvedilol exerts protection against the vascular or cardiac toxicity of Doxorubicin (DOX)[1].

The β -receptor blocking activity of (S)-Carvedilol is about 100 times greater than that of (R)-

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

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Carvedilol, whereas both enantiomers show equipotent potency as α -blockers[1].(S)-Carvedilol significantly attenuates Doxorubicin (DOX)-induced cell death, apoptotic morphological changes, decrease the mitochondrial membrane potential and oxidative stress responses by increasing the superoxide dismutase and catalase activities, and decreasing malondialdehyde contents and reactive oxygen species levels via the PI3K/AKT/eNO synthase pathway in vitro[1].(S)-Carvedilol treatment significantly upregulates the expression levels of p-eNOS in HUVECs[1].

[1]. 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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