

Product Data Sheet

Product Name: Quinaprilat

Cat. No.: GC52034

Chemical Properties

Cas. No. 82768-85-2

SMILES OC([C@H](CCC1=CC=CC=C1)N[C@@H](C)C(N2[C@@H](CC3=CC=CC=C3C2)C(O)=O)=O)=O

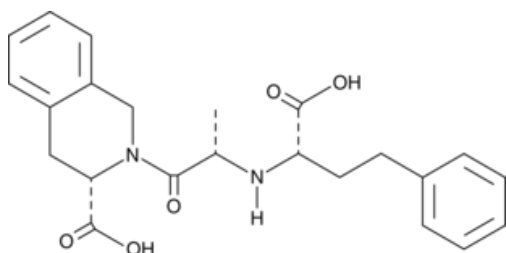
Formula C₂₃H₂₆N₂O₅ M.Wt 410.5

Solubility DMSO: Slightly soluble, Methanol: Slightly soluble Storage -20°C

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

Quinaprilat is an inhibitor of angiotensin-converting enzyme (ACE; IC₅₀ = 0.06 nM) and an active metabolite of the ACE inhibitor prodrug quinapril.^{1,2} It inhibits calcium overload and rod to round cell shape change induced by lysophosphatidylcholine (LPC) in isolated rat cardiomyocytes when used at concentrations of 20 and 50 μM.² Quinaprilat (3 μg/kg) reduces the frequency of ventricular fibrillation in a dog model of myocardial ischemia and reperfusion injury.³ It also reduces blood pressure and proteinuria in rat models of uranyl nitrate- or 5/6 nephrectomy-induced chronic renal failure when administered at a dose of 0.1 mg/kg.⁴

1. Perich, R.B., Jackson, B., and Johnston, C.I. Structural constraints of inhibitors for binding at two

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

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active sites on somatic angiotensin converting enzymeEur. J. Pharmacol.266(3)201-211(1994) 2.Ma, H., Hashizume, H., Hara, A., et al.Protective effect of quinaprilat, an active metabolite of quinapril, on Ca²⁺-overload induced by lysophosphatidylcholine in isolated rat cardiomyocytesJpn. J. Pharmacol.79(1)17-24(1999) 3.Fujinaga, H., Wakatsuki, T., Nishikado, A., et al.Electrophysiologic effects of quinaprilat in dogs during acute myocardial ischemia and following reperfusionCoron. Artery Dis.9(10)697-701(1998) 4.Appenroth, D., Beutinger, R., Lupp, A., et al.Effects of a therapy with losartan and quinaprilat on the progression of chronic renal failure in rats after a single dose of uranyl nitrate or 5/6 nephrectomyExp. Toxicol. Pathol.54(5-6)359-366(2003)

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