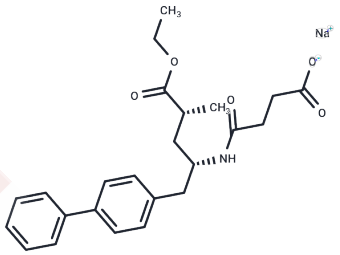
Data Sheet (Cat.No.T4574L)

TargetMol

Sacubitril sodium

Chemical Properties



CAS No. : 149690-05-1

Formula: C24H28NNaO5

Molecular Weight: 433.47

Storage: 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	Sacubitril sodium (AHU-377) is a potent NEP inhibitor with an IC50=5 nM for the treatment of heart failure or in combination with antihypertensive agents.
Targets(IC50)	Neprilysin
In vivo	In volume-dependent hypertensive rat models, oral administration of Sacubitril sodium (30 and 100 mg/kg) produced a dose-dependent antihypertensive effect in Dahl salt-sensitive (Dahl-SS) rats. In contrast, only modest blood pressure reduction was observed in DOCA-salt rats, despite achieving >95% neprilysin enzyme occupancy at 100 mg/kg, indicating greater sensitivity to neprilysin inhibition in the Dahl-SS model[2].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble), DMSO: 10 mg/mL (23.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.307 mL	11.5348 mL	23.0696 mL
5 mM	0.4614 mL	2.307 mL	4.6139 mL
10 mM	0.2307 mL	1.1535 mL	2.307 mL
50 mM	0.0461 mL	0.2307 mL	0.4614 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

Hegde, L.G., et al. Comparative efficacy of AHU-377, a potent neprilysin inhibitor, in two rat models of volume-dependent hypertension. BMC Pharmacol 11, P33 (2011).
Fox H, Bitter T, Horstkotte D, Oldenburg O. Resolution of Cheyne-Stokes Respiration after Treatment of Heart Failure with Sacubitril/Valsartan: A First Case Report. Cardiology. 2017 Feb 9;137(2):96-99.
Böhm M, et al. Systolic blood pressure, cardiovascular outcomes and efficacy and safety of sacubitril/valsartan (LCZ696) in patients with chronic heart failure and reduced ejection fraction: results from PARADIGM-HF. Eur Heart J. 2017 Feb 1.
Kaplinsky E. Changing the treatment of heart failure with reduced ejection fraction: clinical use of sacubitril-valsartan combination. J Geriatr Cardiol. 2016 Nov;13(11):914-923.
Williams B, Cockcroft JR, Kario K, Zappe DH, Brunel PC, Wang Q, Guo W. Effects of Sacubitril/Valsartan Versus Olmesartan on Central Hemodynamics in the Elderly With Systolic Hypertension: The PARAMETER Study. Hypertension. 2017 Mar;69(3):411-420.