

# Sacubitril

**Catalog No: tcsc2119**



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

149709-62-6

**Formula:**

$C_{24}H_{29}NO_5$

**Pathway:**

Metabolic Enzyme/Protease

**Target:**

Neprilysin

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 100$  mg/mL (243.02 mM); H<sub>2</sub>O :

**Alternative Names:**

AHU-377

**Observed Molecular Weight:**

411.49

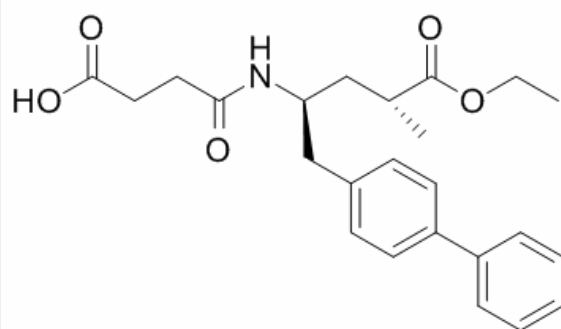
## Product Description

Sacubitril (AHU-377) is a potent **NEP** inhibitor with an **IC<sub>50</sub>** of 5 nM. Sacubitril (AHU-377) is a component of the heart failure medicine LCZ696.

IC50 & Target: IC50: 5 nM (NEP)<sup>[1]</sup>

**In Vitro:** Sacubitril (AHU-377) is a single molecule that is comprised of molecular moieties of valsartan, an ARB, and Sacubitril (AHU-377), a neprilysin inhibitor (1:1 ratio). Sacubitril (AHU-377) is converted by enzymatic cleavage of the ethyl ester into the active neprilysin inhibiting metabolite LBQ657<sup>[2]</sup>. The inactive NEPi precursor, Sacubitril (AHU-377), does not inhibit collagen accumulation in fibroblasts nor cardiac myocyte hypertrophy. In cardiac fibroblasts, the active NEPi LBQ657 had no discernible effects. In contrast, LBQ657 modestly inhibits cardiac myocyte hypertrophy<sup>[3]</sup>.

**In Vivo:** In humans, Sacubitril (AHU-377) ( $t_{\max}$  0.5-1.1 h) are absorbed quickly. Sacubitril (AHU-377) is converted rapidly into LBQ657 with its  $t_{\max}$  being reached in 1.9-3.5 h. Mean  $t_{1/2}$  values for the biologically active LBQ657 is 9.9-11.1 h<sup>[2]</sup>. In vehicle-treated dogs, ANF increases urinary sodium excretion from  $17.3 \pm 3.6$  to  $199.5 \pm 18.4$   $\mu\text{equiv/kg/min}$ . This effect is potentiated significantly in animals which receive Sacubitril (AHU-377). Urinary volume is also potentiated in animals which receive an iv administration of Sacubitril (AHU-377)<sup>[1]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!