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## Product Data Sheet

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Product Name:  $\beta$ -NETA  
Cat. No.: GC27671

### Chemical Properties

Cas. No. 31059-54-8

Formula  $C_{16}H_{20}INO$

M.Wt 369.24

Solubility DMSO : 31.25 mg/mL (84.63 mM;  
Need ultrasonic)

Storage 4°C, sealed storage, away  
from moisture

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

$\beta$ -NETA is a potent and noncompetitive choline acetyltransferase (ChA;  $IC_{50}=76 \mu M$ ) and cholinesterase (ChE;  $IC_{50}=40 \mu M$ ) inhibitor.  $\beta$ -NETA weakly inhibits acetylcholinesterase (AChE;  $IC_{50}=1 mM$ )<sup>[1][2]</sup>.

At ChA-inhibiting concentrations,  $\beta$ -NETA had no effect on muscarinic receptors, ganglion nicotinic receptors, skeletal muscle nicotinic receptors, cholinesterase, or carnitine acetyltransferase. At concentrations above the ChA-inhibiting  $IC_{50}$  value,  $\beta$ -NETA antagonized acetylcholine ( $ED_{50} = 100 \mu M$ ), histamine, and KCl-induced guinea pig ileal longitudinal muscle contraction <sup>[2]</sup>.

### References:

[1]. Sastry BV, et al. Relationships between chemical structure and inhibition of choline acetyltransferase by 2-(alpha-naphthoyl)ethyltrimethylammonium and related compounds. Pharmacol Res Commun. 1988 Sep;20(9):751-71.

[2]. B V Sastry, et al. 2-(alpha-Naphthoyl)ethyltrimethylammonium iodide and its beta-isomer: new selective, stable and fluorescent inhibitors of choline acetyltransferase. J

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

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Pharmacol Exp Ther. 1988 Apr;245(1):72-80.

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