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**Product Data Sheet**

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Product Name: Guvacine  
Cat. No.: GC60890

**Chemical Properties**

Cas. No. 498-96-4

SMILES O=C(C1=CCCNC1)O

Formula  $C_6H_9NO_2$  M.Wt 127.14

Solubility Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  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**

Guvacine is an amino acid found in *A. catechu* (Betel nut).<sup>1</sup> It competitively inhibits GABA uptake ( $IC_{50} = 10 \mu M$ ;  $K_i = 14 \mu M$ ) in rat hippocampal brain slices.<sup>1,2</sup> *In vivo*, guvacine, at doses ranging from 50-100 mg/kg, decreases spontaneous activity in mice.<sup>1</sup> Administration of guvacine also decreases tail flick reaction time in a rat model of morphine analgesia.<sup>3</sup>

1. Johnston, G.A., Krogsgaard-Larsen, P., and Stephanson, A. Betel nut constituents as inhibitors of  $\gamma$ -aminobutyric acid uptake. *Nature* 258(5536):627-628 (1975)  
2. Pavia, M.R., Lobbstaël, S.J., Nugiel, D., et al. Structure-activity studies on benzhydrol-containing nipecotic acid and guvacine derivatives as potent, orally-active inhibitors of GABA uptake. *J. Med. Chem.* 35(22):4238-4248 (1992)  
3. Mantegazza, P., Tammiso, R., Vicentini, L., et al. Nipecotic acid and guvacine antagonism on morphine analgesia in rats. *Pharmacol. Res. Commun.* 11(8):657-662 (1979)

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

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