

Product Data Sheet

Product Name: Fenobam (hydrate)

Cat. No.: GC47336

Chemical Properties

Cas. No. 63540-28-3

SMILES C1C=CC=CC(NC(NC(N(C)C2)=NC2=O)=O)=C1.O

Formula C₁₁H₁₁ClN₄O₂.H₂O

M.Wt 284.7

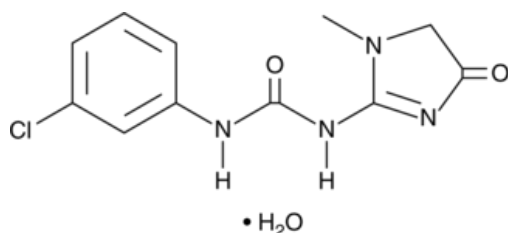
Solubility DMSO: 100 mM

Storage Store at -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

Fenobam is a noncompetitive antagonist and inverse agonist of metabotropic glutamate receptor 5 (mGluR5) that binds to an allosteric site.¹ It inhibits intracellular calcium mobilization induced by the glutamate analog quisqualate in HEK293 cells expressing the human receptor (IC₅₀ = 58 nM) and inhibits basal activity of mGluR5 in a cell-based assay (IC₅₀ = 84 nM).¹ Fenobam (10 and 30 mg/kg) reduces stress-induced hyperthermia in mice and increases drinking time in the Vogel conflict test in rats when administered at a dose of 30 mg/kg, indicating anxiolytic-like activity. It induces analgesia in the formalin test in mice when administered at a dose of 30 mg/kg.²

1. Porter, R.H.P., Jaeschke, G., Spooren, W., et al. Fenobam: A clinically validated nonbenzodiazepine anxiolytic is a potent, selective, and noncompetitive mGlu5 receptor antagonist with inverse agonist activity. *J. Pharmacol. Exp. Ther.* 315(2):711-721 (2005).
2. Montana, M.C., Conrardy, B.A., Cavallone, L.F., et al. Metabotropic glutamate receptor 5 antagonism with fenobam:

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Examination of analgesic tolerance and side effect profile in mice *Anesthesiology* 115(6)1239-1250(2011)

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA