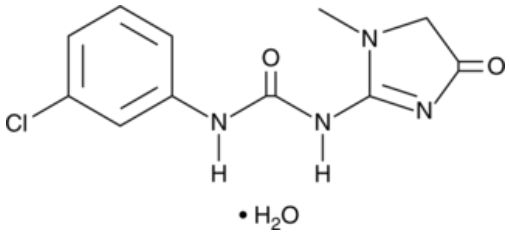
Product Data Sheet

Product Name: Fenobam (hydrate)
Cat. No.: GC47336

Chemical Properties

Cas. No.	63540-28-3		
SMILES	ClC1=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 (IC_{50} = 58 nM) and inhibits basal activity of mGluR5 in a cell-based assay (IC_{50} = 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 activityJ. 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:

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Examination of analgesic tolerance and side effect profile in miceAnesthesiology115(6)1239-1250(2011)