

Hello Bio, Inc.  
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500  
F. 609-228-4994

customer-care-usa@helloworldbio.com



## DATASHEET

Fenobam

### Product overview

<b>Name</b>	Fenobam
<b>Cat No</b>	HB0286
<b>Biological action</b>	Antagonist
<b>Purity</b>	>99%
<b>Description</b>	Potent, selective, non-competitive mGlu <sub>5</sub> antagonist

### Images



### Biological Data

<b>Biological description</b>	Potent, selective and non-competitive mGlu <sub>5</sub> receptor antagonist. Acts at allosteric modulatory site ( $K_d$ values are 54 and 31 nM at rat and human mGlu <sub>5</sub> receptors respectively). Shows inverse agonist properties on receptor basal activity ( $IC_{50}$ value = 84 nM). Displays analgesic, anxiolytic and antidepressant effects. Orally active.
-------------------------------	---

### Solubility & Handling

<b>Storage instructions</b>	Room temperature
<b>Solubility overview</b>	Soluble in DMSO (100mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	<i>N</i> -(3-Chlorophenyl)- <i>N'</i> -(4,5-dihydro-1-methyl-4-oxo-1 <i>H</i> -imidazol-2-yl)urea
<b>Molecular Weight</b>	266.69
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>11</sub> H <sub>11</sub> N <sub>4</sub> O <sub>2</sub> Cl
<b>CAS Number</b>	57653-26-6
<b>PubChem identifier</b>	162834
<b>SMILES</b>	CN1CC(=O)N=C1NC(=O)NC2=CC(=CC=C2)Cl

<b>Source</b>	Synthetic
<b>InChi</b>	InChI=1S/C11H11ClN4O2/c1-16-6-9(17)14-10(16)15-11(18)13-8-4-2-3-7(12)5-8/h2-5H,6H2,1H3,(H2,13,14,15,17,18)
<b>InChiKey</b>	DWPQODZAOSWNHB-UHFFFAOYSA-N
<b>MDL number</b>	MFCD00868019
<b>Appearance</b>	Yellow solid

---

## References

**Fenobam: a clinically validated nonbenzodiazepine anxiolytic is a potent, selective, and noncompetitive mGlu5 receptor antagonist with inverse agonist activity.**

Porter RH *et al* (2005) J Pharmacol Exp Ther 315(2)

**PubMedID** [16040814](#)

**Antagonists at metabotropic glutamate receptor subtype 5: structure activity relationships and therapeutic potential for addiction.**

Carroll FI (2008) Ann N Y Acad Sci 1141

**PubMedID** [18991960](#)

**The metabotropic glutamate receptor subtype 5 antagonist fenobam is analgesic and has improved in vivo selectivity compared with the prototypical antagonist 2-methyl-6-(phenylethynyl)-pyridine.**

Montana MC *et al* (2009) J Pharmacol Exp Ther 330(3)

**PubMedID** [19515968](#)

---