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DATASHEET

Fenobam

Product overview

Name Fenobam
Cat No HB0286
Biological action Antagonist
Purity >99%

Description Potent, selective, non-competitive mGlu₅ antagonist

Images



Biological Data

Biological description

Potent, selective and non-competitive $mGlu_5$ receptor antagonist. Acts at allosteric modulatory site (K_d values are 54 and 31 nM at rat and human $mGlu_5$ 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

Solubility overview Storage instructions Storage of solutions

Shipping Conditions

Important

Soluble in DMSO (100mM)

Room temperature

Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use.

Chemical Data

Chemical name Molecular Weight Chemical structure N-(3-Chlorophenyl)-N-(4,5-dihydro-1-methyl-4-oxo-1*H*-imidazol-2-yl)urea

Molecular Formula

C₁₁H₁₁N₄O₂CI

CAS Number 57653-26-6 PubChem identifier 162834

Source Synthetic

InChi InChi=1S/C11H11CIN4O2/c1-16-6-9(17)14-10(16)15-11(18)13-8-4-2-3-7(12)5-8/h2-5H,6H2,1H3,(H

2,13,14,15,17,18)

InChiKey DWPQODZAOSWNHB-UHFFFAOYSA-N

MDL number MFCD00868019 Appearance 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