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DATASHEET

CGP 78608 hydrochloride

Product overview

Name	CGP 78608 hydrochloride
Cat No	HB0187
Alternative names	PAMQX
Biological action	Antagonist
Purity	>98%
Description	Selective, competitive GluN1 NMDAR receptor antagonist. Enhances GluN1/3 activation.

Biological Data

Biological description	Selective and competitive GluN1 NMDAR receptor antagonist which shows preference for the GluN1 glycine binding site ($IC_{50} = 5 \text{ nM}$). CGP-78608 prevents glycine binding to GluN1 (but not to GluN3) to strongly reduce receptor desensitization, and enhance GluN1/3A receptor activation. Used to unmask GluN1/GluN3A excitatory glycine NMDA receptors and to demonstrate that excitatory glycine GluN1/GluN3A NMDARs are functionally expressed in native neurons (at least in the juvenile brain). Also displays anticonvulsant properties.
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Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in NaOH(aq) (50mM, gentle warming)
Shipping conditions	The stability of this product allows for safe shipment at ambient temperature. Please follow the recommended storage conditions upon receipt.

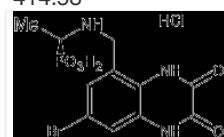
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.
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Chemical Data

Chemical name	[(1S)-1-[[[(7-Bromo-1,2,3,4-tetrahydro-2,3-dioxo-5-quinoxaliny)l)methyl]amino]ethyl]phosphonic acid hydrochloride
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Molecular Weight 414.58

Chemical structure



Molecular Formula $C_{11}H_{13}BrN_3O_5P \cdot HCl$

CAS Number 1135278-54-4

PubChem identifier 24978530

SMILES O=C2C(NC1=CC(Br)=CC(CN[C@@H]([P@](O)(O)=O)C)=C1N2)=O.Cl

Chemical name	[(1S)-1-[[[(7-Bromo-1,2,3,4-tetrahydro-2,3-dioxo-5-quinoxaliny]methyl]amino]ethyl]phosphonic acid hydrochloride
InChiKey	MZQQZBPMRPDKTB-JEDNCBNOSA-N

References

N-phosphonoalkyl-5-aminomethylquinoxaline-2,3-diones: in vivo active AMPA and NMDA(glycine) antagonists.

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Synthesis, radiolabelling and biological characterization of (D)-7-iodo-N-(1-phosphonoethyl)-5-aminomethylquinoxaline-2,3-dione, a glycine-binding site antagonist of NMDA receptors.

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Papa SM *et al* (2004) Ann Neurol 56(5)

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Unmasking GluN1/GluN3A excitatory glycine NMDA receptors.

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