

Product Name: CGP 78608 hydrochloride

Catalog No.: 1493

Batch No.: 2

CAS Number: 1135278-54-4

IUPAC Name: [(1S)-1-[[[7-Bromo-1,2,3,4-tetrahydro-2,3-dioxo-5-quinoxaliny]methyl]amino]ethyl]phosphonic acid hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₃BrN₃O₅P.HCl.½H₂O

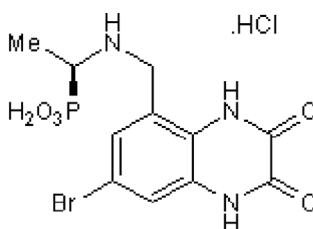
Batch Molecular Weight: 423.59

Physical Appearance: White solid

Solubility: 2.2eq. NaOH to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Butanol:Acetic acid:Water [40:10:25])

Melting Point: At 260°C(dec)

HPLC: Shows 98.4% purity

¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	31.19	3.57	9.92
Found	31.21	3.44	9.73

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Description:

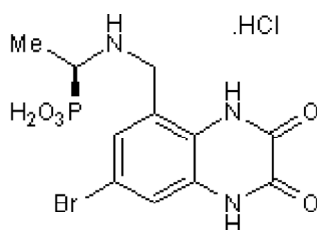
CGP 78608 hydrochloride is a potent and selective NMDA antagonist that acts through the glycine site (IC₅₀ = 5 nM). Displays > 500-fold selectivity over kainate and AMPA receptors (IC₅₀ values are 2.7 and 3 μM respectively). Also potentiates GluN1/GluN3A-mediated glycine currents (EC₅₀ = 26.3 nM). Anticonvulsant in vivo following systemic administration.

Physical and Chemical Properties:

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Batch Molecular Weight: 423.59
Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Grand et al (2018) Unmasking GluN1/GluN3A excitatory glycine NMDA receptors. *Nat. Commun.* **9** 4769. PMID: 30425244.
Ametamey et al (2000) 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. *Bioorg.Med.Chem.Lett.* **10** 75. PMID: 10636248.
Auberson et al (1999) N-phosphonoalkyl-5-aminomethylquinoxaline-2,3-diones: *in vivo* active AMPA and NMDA(glycine) antagonists. *Bioorg.Med.Chem.Lett.* **9** 249. PMID: 10021939.

Storage: Store at RT

Solubility & Usage Info:

2.2eq. NaOH to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold with the permission of Novartis Pharma AG

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