Print Date: Sep 16th 2020

Certificate of Analysis

www.tocris.com

Product Name: **CGP 78608 hydrochloride** **Catalog No.: 1493** **Batch No.: 2**

CAS Number: 1135278-54-4

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{11}H_{13}BrN_3O_5P.HCl.½H_2O$

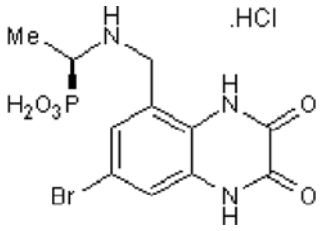
Batch Molecular Weight: 423.59

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 98.6% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	31.19	3.57	9.92
Found	31.21	3.44	9.73

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **CGP 78608 hydrochloride** **Catalog No.: 1493** **Batch No.: 2**

CAS Number: 1135278-54-4

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

Description:

Potent and selective NMDA antagonist that acts through the glycine site (IC_{50} = 5 nM). Displays > 500-fold selectivity over kainate and AMPA receptors (IC_{50} values are 2.7 and 3 µM respectively). Also potentiates GluN1/GluN3A-mediated glycine currents (EC_{50} = 26.3 nM). Anticonvulsant in vivo following systemic administration.

Physical and Chemical Properties:

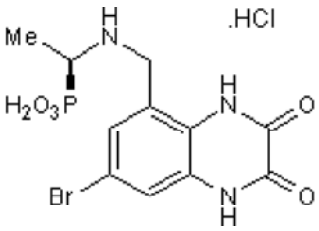
Batch Molecular Formula: $C_{11}H_{13}BrN_3O_5P.HCl.½H_2O$

Batch Molecular Weight: 423.59

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



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. Our standard recommendations are:

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

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)l-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.