

Certificate of Analysis

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Product Name: GGsTop

Catalog No.: 4452

Batch No.: 5

CAS Number: 926281-37-0

IUPAC Name: 3-[[[(3-Amino-3-carboxypropyl)methoxyphosphinyl]oxy]benzeneacetic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₈NO₇P.¼H₂O

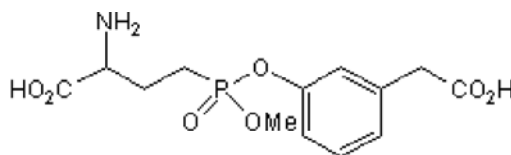
Batch Molecular Weight: 335.76

Physical Appearance: White solid

Solubility: water to 20 mM
DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	46.5	5.55	4.17
Found	46.22	5.48	4

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 926281-37-0

IUPAC Name: 3-[[[(3-Amino-3-carboxypropyl)methoxyphosphinyl]oxy]benzeneacetic acid

Description:

Selective, irreversible γ -glutamyl transpeptidase (GGT) inhibitor; displays no inhibitory effects on glutamine amidotransferases or asparagine synthetase. Suppresses oxidative stress by inhibiting GGT activation. Prevents ischemia/reperfusion-induced acute kidney injury in rats in vivo.

Physical and Chemical Properties:

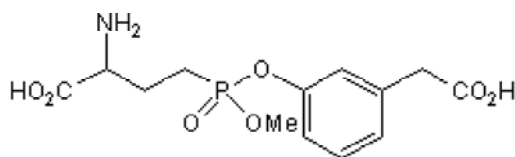
Batch Molecular Formula: C₁₃H₁₈NO₇P·¼H₂O

Batch Molecular Weight: 335.76

Physical Appearance: White solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

Solubility & Usage Info:

water to 20 mM

DMSO to 50 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival.

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.

References:

Yamamoto *et al* (2011) Preventive effect of GGT₁Top, a novel and selective γ -glutamyl transpeptidase inhibitor, on ischemia/reperfusion-induced renal injury in rats. *J.Pharmacol.Exp.Ther.* **339** 945. PMID: 21937737.

Han *et al* (2007) Design, synthesis, and evaluation of γ -phosphono diester analogues of glutamate as highly potent inhibitors and active site probes of γ -glutamyl transpeptidase. *Biochemistry* **46** 1432. PMID: 17260973.

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