

Product Name: CP 316819

Catalog No.: 3542

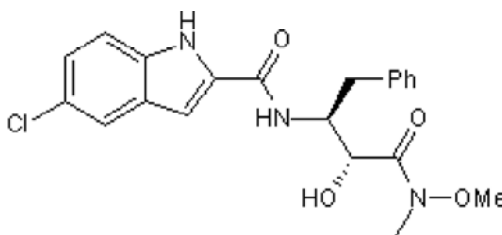
Batch No.: 2

CAS Number: 186392-43-8

IUPAC Name: 5-Chloro-*N*-[(1*S*,2*R*)-2-hydroxy-3-(methoxymethylamino)-3-oxo-1-(phenylmethyl)propyl]-1*H*-indole-2-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₂ClN₃O₄
Batch Molecular Weight: 415.87
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (75% EtOAc/PE)
HPLC: Shows 98.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.65	5.33	10.1
Found	60.66	5.39	10.1

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

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Description:

CP 316819 is a selective glycogen phosphorylase inhibitor [IC₅₀ values are 0.017 and 0.034 μM against human skeletal muscle glycogen phosphorylase a (huSMGPa) and liver glycogen phosphorylase a (huLGPa) respectively]. Antihyperglycemic agent.

Physical and Chemical Properties:

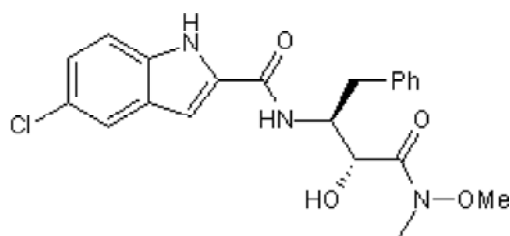
Batch Molecular Formula: C₂₁H₂₂ClN₃O₄

Batch Molecular Weight: 415.87

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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.

References:

Suh et al (2007) Astrocyte glycogen sustains neuronal activity during hypoglycemia: studies with the glycogen phosphorylase inhibitor CP-316,819 ([*R*-*R*^{*},*S*^{*}]-5-chloro-*N*-[2-hydroxy-3-(methoxymethylamino)-3-oxo-1-(phenylmethyl)propyl]-1*H*-indole-2-carboxamide). *J.Pharmacol.Exp.Ther.* **321** 45. PMID: 17251391.

Freeman et al (2006) Sensitivity of glycogen phosphorylase isoforms to indole site inhibitors is markedly dependent on the activation site of the enzyme. *Br.J.Pharmacol.* **149** 775. PMID: 17016495.

Baker et al (2005) Glycogen phosphorylase inhibition in type 2 diabetes therapy: a systematic evaluation of metabolic and functional effects in rat skeletal muscle. *Diabetes* **54** 2453. PMID: 16046314.

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