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Print Date: Jan 13th 2016

Certificate of Analysis

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Product Name: **(*RS*)-3,4-DCPG** **Catalog No.: 1394** **Batch No.: 3**

CAS Number: 176796-64-8

IUPAC Name: (*RS*)-3,4-Dicarboxyphenylglycine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{10}H_9NO_6.1¾H_2O$

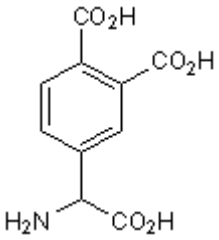
Batch Molecular Weight: 270.7

Physical Appearance: White solid

Solubility: water to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Pyridine:Acetic acid:Water:Butanol [3:8:11:14])

Melting Point: Greater than 300°C

HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.37	4.65	5.17
Found	44.56	4.5	4.99

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Description:

Systemically active anticonvulsant that is 30-100-fold more potent in vivo than the separate enantiomers (S)-3,4-DCPG (Cat. No. 1302) or (R)-3,4,-DCPG (Cat. No. 1395).

Physical and Chemical Properties:

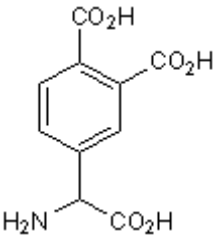
Batch Molecular Formula: $C_{10}H_9NO_6.1¾H_2O$

Batch Molecular Weight: 270.7

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 50 mM

CAUTION - Analysis shows that this material rapidly decomposes when dissolved in alkaline solution. Therefore we recommend that this product is dissolved in water.

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:

Thomas *et al* (1997) Dicarboxyphenylglycines antagonize AMPA- but not kainate-induced depolarizations in neonatal rat motoneurones. Eur.J.Pharmacol. ***338*** 111. PMID: 9455991.

Thomas *et al* (1998) Pharmacological differentiation of kainate receptors on neonatal rat spinal motoneurones and dorsal roots. Neuropharmacology ***37*** 1223. PMID: 9849660.

Moldrich *et al* (2001) Anticonvulsant activity of 3,4-dicarboxyphenylglycines in DBA/2 mice. Neuropharmacology ***40*** 732. PMID: 11311902.

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