

Product Name: DCG IV

Catalog No.: 0975

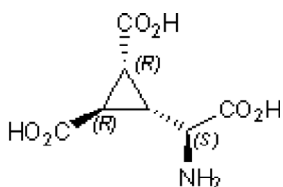
Batch No.: 20

CAS Number: 147782-19-2

IUPAC Name: (2*S*,2'*R*,3'*R*)-2-(2',3'-Dicarboxycyclopropyl)glycine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇H₉NO₆
Batch Molecular Weight: 203.15
Physical Appearance: White solid
Solubility: water to 100 mM
 phosphate buffered saline to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.35 (Pyridine:Acetic acid:Water:Butanol [3:8:11:22])
HPLC: Shows 98.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -13.4 (Concentration = 1, Solvent = Water)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.39	4.47	6.89
Found	41.44	4.47	6.9

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

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IUPAC Name: (2S,2'R,3'R)-2-(2',3'-Dicarboxycyclopropyl)glycine

Description:

DCG IV is a presynaptic depressant; highly potent agonist for group II mGlu receptors.

Physical and Chemical Properties:

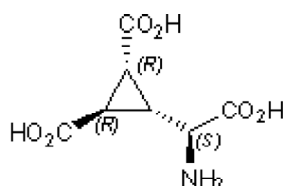
Batch Molecular Formula: C₇H₉NO₆

Batch Molecular Weight: 203.15

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

phosphate buffered saline to 100 mM

When purchased as a 1mg unit, this product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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 Suntory Ltd.

References:

Brabet et al (1998) Comparative effect of L-CCG-I, DCG-IV and γ-carboxy-L-glutamate on all cloned metabotropic glutamate receptor subtypes. *Neuropharmacology* **37** 1043. PMID: 9833633.

Cartmell et al (1998) Characterization of [³H]- (2S,2'R,3'R)-2-(2',3'-dicarboxycyclopropyl)glycine ([³H]-DCG IV) binding to metabotropic mGlu₂ receptor-transfected cell membranes. *Br.J.Pharmacol.* **123** 497. PMID: 9504391.

Ishida et al (1993) A novel metabotropic receptor agonist: marked depression of monosynaptic excitation in the isolated rat spinal cord. *Br.J.Pharmacol.* **109** 1169. PMID: 8401927.

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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