

Product Name: Domoic acid

Catalog No.: 0269

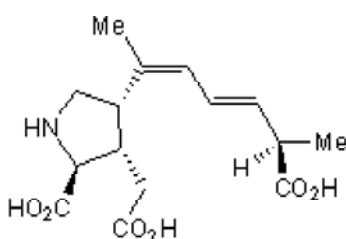
Batch No.: 30

CAS Number: 14277-97-5

IUPAC Name: (2*S*,3*S*,4*R*,5'*R*)-2-Carboxy-4-(5'-carboxy-1'-methyl-1*Z*,3*E*-hexadienyl)-3-pyrrolidineacetic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₁NO₆
Batch Molecular Weight: 311.33
Physical Appearance: White solid
Solubility: water to 50 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.7% purity
Mass Spectrum: Consistent with structure

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

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Description:

Kainate receptor agonist. More potent and possibly more selective than kainate at kainate receptors, as demonstrated in electrophysiological studies.

Physical and Chemical Properties:

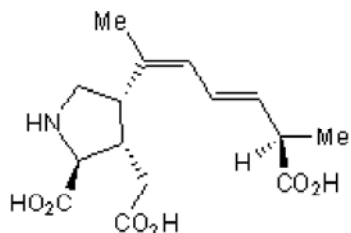
Batch Molecular Formula: C₁₅H₂₁NO₆

Batch Molecular Weight: 311.33

Physical Appearance: White solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Desiccate at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 50 mM

CAUTION - Solutions of this product should be made up and used on the same day. Solutions that are frozen should be aliquoted and used within 1 week. This product is supplied as a lyophilized solid and may 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. 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:

Hampson and Manalo (1998) The activation of glutamate receptors by kainic acid and domoic acid. *Nat.Toxins* **6** 153. PMID: 10223631.

Watkins et al (1990) Experiments with kainate and quisqualate agonists and antagonists in relation to the sub-classification of 'non-NMDA' receptors. *Excitatory Amino Acids and Synaptic Plasticity*. Ed 49.

Debonnel et al (1989) Domoic acid, the alleged 'mussel toxin', might produce its neurotoxic effect through kainate receptor activation: an electro-physiological study in rat dorsal hippocampus. *Can.J.Physiol.Pharmacol.* **67** 29. PMID: 2540893.

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