

Product Name: ZJ 43

Catalog No.: 2675

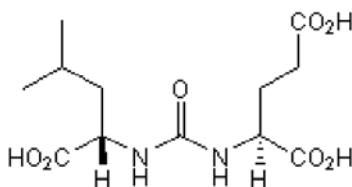
Batch No.: 4

CAS Number: 723331-20-2

IUPAC Name: N-[[[(1S)-1-Carboxy-3-methylbutyl]amino]carbonyl]-L-glutamic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₂₀N₂O₇
Batch Molecular Weight: 304.3
Physical Appearance: Off White solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 95.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	47.37	6.62	9.21
Found	46.99	6.56	8.87

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

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Description:

Potent inhibitor of glutamate carboxypeptidase II and III (GCP II and III/NAAG peptidase/NAALADase) (K_i values are 0.8 and 23 nM respectively) that inhibits the hydrolysis of NAAG ($IC_{50} = 2.4$ nM). Does not directly interact with NMDA or metabotropic glutamate receptors. Reduces neuronal degeneration in a rat model of traumatic brain injury (TBI) and reduces locomotor activity in the PCP-model of schizophrenia.

Physical and Chemical Properties:

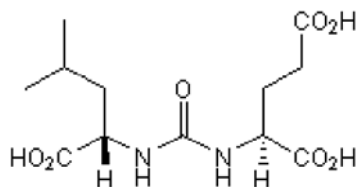
Batch Molecular Formula: $C_{12}H_{20}N_2O_7$

Batch Molecular Weight: 304.3

Physical Appearance: Off White solid

Minimum Purity: $\geq 95\%$

Batch Molecular Structure:



Storage: Store at $-20^{\circ}C$. This product is packaged under an inert atmosphere.

Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

Standard retail vials are prepared by lyophilisation. The product may appear as a solid, a gel or a film. 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 $45-60^{\circ}C$ 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 $-20^{\circ}C$ 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 Acenta Discovery, Inc.

References:

Yamamoto et al (2007) Local administration of *N*-acetylaspartylglutamate (NAAG) peptidase inhibitors is analgesic in peripheral pain in rats. *Eur.J.Neurosci.* **25** 147. PMID: 17241276.

Zhou et al (2005) NAAG peptidase inhibitors and their potential for diagnosis and therapy. *Nat.Rev.Drug Discov.* **4** 1015. PMID: 16341066.

Olszewski et al (2004) NAAG peptidase inhibition reduces locomotor activity and some stereotypes in the PCP model of schizophrenia via group II mGluR. *J.Neurochem.* **89** 876. PMID: 15140187.

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