Print Date: Feb 11th 2020

Certificate of Analysis

www.tocris.com

Product Name: **UBP 296** **Catalog No.: 2078** **Batch No.: 1**

CAS Number: 745055-86-1

IUPAC Name: (*RS*)-1-(2-Amino-2-carboxyethyl)-3-(2-carboxybenzyl)pyrimidine-2,4-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{15}H_{15}N_3O_6.H_2O$

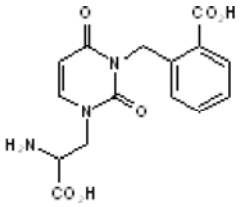
Batch Molecular Weight: 351.32

Physical Appearance: White solid

Solubility: 1eq. NaOH to 10 mM with gentle warming
1eq. HCl to 5 mM with gentle warming
DMSO to 10 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Isopropanol:Acetic acid [7:3])

HPLC: Shows 98.9% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.28	4.88	11.96
Found	51.14	4.9	12.07

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Description:

Selective GluK1 (formally GluR5) subunit containing kainate receptor antagonist (apparent K_D = 1.09 µM). Displays ~ 90-fold selectivity over AMPA receptors and recombinant hGluK2 (formally hGluR6) and GluK5 (formally KA2) containing kainate receptors. Has little or no action at NMDA or group I mGlu receptors. Selectively blocks kainate receptor-mediated LTP induction in rat hippocampal mossy fibers. Active Enantiomer also available. Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions. Please see product datasheet on www.tocris.com for full description.

Physical and Chemical Properties:

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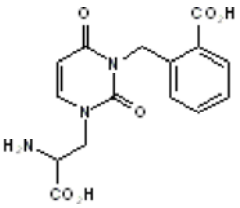
Batch Molecular Weight: 351.32

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

1eq. NaOH to 10 mM with gentle warming
1eq. HCl to 5 mM with gentle warming
DMSO to 10 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:

Dolman *et al* (2005) Synthesis and pharmacology of willardiine derivatives acting as antagonists of kainate receptors. J.Med.Chem. ***48*** 7867. PMID: 16302825.

More *et al* (2004) Characterisation of UBP296: a novel, potent and selective kainate receptor antagonist. Neuropharmacology ***47*** 46. PMID: 15165833.