bio-techne
TOCRIS

Print Date: Sep 7th 2023

Certificate of Analysis

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Product Name: **A 740003** **Catalog No.: 3701** **Batch No.: 4**

CAS Number: 861393-28-4

IUPAC Name: *N*-[1-[[(Cyanoamino)(5-quinolinylamino)methylene]amino]-2,2-dimethylpropyl]-3,4-dimethoxybenzeneacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{30}N_6O_3$

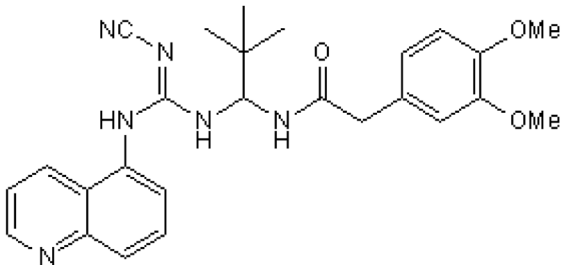
Batch Molecular Weight: 474.55

Physical Appearance: White solid

Solubility: DMSO to 20 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.8	6.37	17.71
Found	64.76	6.03	17.44

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Description:

A 740003 is a potent and selective $P2X_7$ receptor antagonist (IC_{50} values are 18 and 40 nM for rat and human receptors respectively). Displays selectivity over a variety of P2X and P2Y receptors up to a concentration of 100 µM. Reduces nociception in animal models of persistent neuropathic and inflammatory pain. Also reduces neuroblastoma tumor growth in mice.

Physical and Chemical Properties:

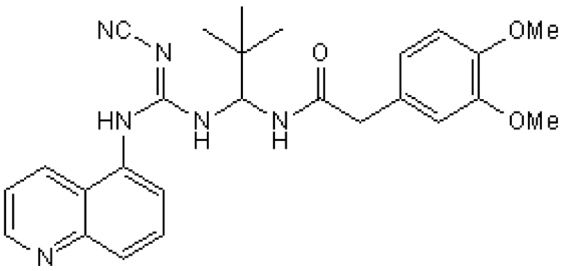
Batch Molecular Formula: $C_{26}H_{30}N_6O_3$

Batch Molecular Weight: 474.55

Physical Appearance: White solid

Minimum Purity: ≥97%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 20 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. *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.

References:

Amoroso *et al* (2015) The P2X7 receptor is a key modulator of the PI3K/GSK3β/VEGF signaling network: evidence in experimental neuroblastoma. Oncogene ***34*** 5240. PMID: 25619831.

Donnelly-Roberts *et al* (2009) Mammalian P2X7 receptor pharmacology: comparison of recombinant mouse, rat and human P2X7 receptors. Br.J.Pharmacol. ***157*** 1203. PMID: 19558545.

King (2007) Novel $P2X_7$ receptor antagonists ease the pain. Br.J.Pharmacol. ***151*** 565. PMID: 17471176.