bio-techne
TOCRIS

Print Date: May 9th 2024

Certificate of Analysis

www.tocris.com

Product Name: **ICA 121431** **Catalog No.: 5066** **Batch No.: 2**

CAS Number: 313254-51-2

IUPAC Name: α-Phenyl-*N*-[4-[(2-thiazolylamino)sulfonyl]phenyl]benzeneacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{23}H_{19}N_3O_3S_2.¼H_2O$

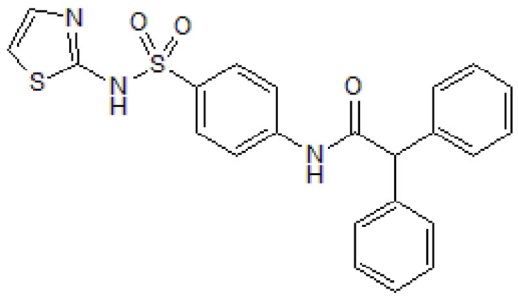
Batch Molecular Weight: 454.05

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.84	4.33	9.25
Found	60.39	4.25	9.35

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Description:

ICA 121431 is a potent and selective inhibitor of human $Na_V1.3$ and $Na_V1.1$ channels (IC_{50} values are 13 and 23 nM respectively). Exhibits up to 1,000 fold selectivity against other TTX-sensitive or resistant sodium channels (IC_{50} values are >10 μM for human $Na_V1.5$ and $Na_V1.8$ channels). Interacts with an inhibitory interaction site distinct from those bound by TTX and local anesthetic-like modulators.

Physical and Chemical Properties:

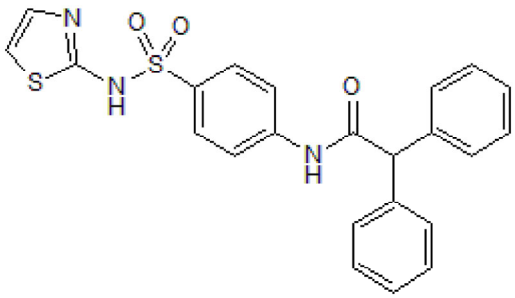
Batch Molecular Formula: $C_{23}H_{19}N_3O_3S_2.¼H_2O$

Batch Molecular Weight: 454.05

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 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:

McCormack *et al* (2013) Voltage sensor interaction site for selective small molecule inhibitors of voltage-gated sodium channels. Proc.Natl.Acad.Sci. ***110*** 2724. PMID: 23818614.