

Certificate of Analysis

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Product Name: ICA 121431

Catalog No.: 5066

Batch No.: 1

CAS Number: 313254-51-2

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{23}H_{19}N_3O_3S_2 \cdot \frac{1}{2}H_2O$

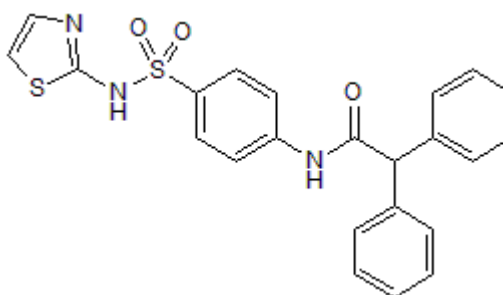
Batch Molecular Weight: 458.56

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.25	4.4	9.16
Found	60.31	4.45	9.14

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

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Description:

Potent and selective inhibitor of human Na_v1.3 and Na_v1.1 channels (IC₅₀ values are 13 and 23 nM respectively). Exhibits up to 1,000 fold selectivity against other TTX-sensitive or resistant sodium channels (IC₅₀ values are >10 μ M 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:

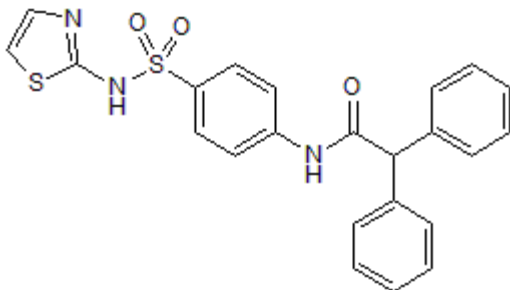
Batch Molecular Formula: C₂₃H₁₉N₃O₃S₂·½H₂O

Batch Molecular Weight: 458.56

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. 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:

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.

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