

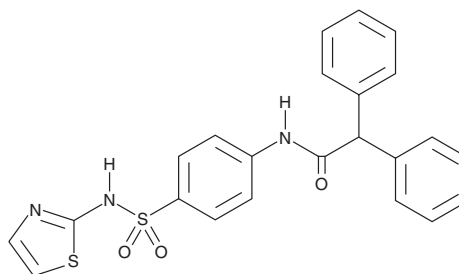
PRODUCT INFORMATION



ICA 121431

Item No. 24669

CAS Registry No.: 313254-51-2
Formal Name: α -phenyl-N-[4-[(2-thiazolylamino) sulfonyl]phenyl]-benzeneacetamide
MF: C₂₃H₁₉N₃O₃S₂
FW: 449.5
Purity: \geq 98%
UV/Vis.: λ_{max} : 205, 260, 287 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ICA 121431 is supplied as a crystalline solid. A stock solution may be made by dissolving the ICA 121431 in the solvent of choice. ICA 121431 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ICA 121431 in ethanol is approximately 0.1 mg/ml and approximately 15 mg/ml in DMSO and DMF.

ICA 121431 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ICA 121431 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ICA 121431 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ICA 121431 is a voltage-gated sodium channel (Na_v) blocker that selectively blocks Na_v1.1 and Na_v1.3 over Na_v1.4, and Na_v1.5-1.8 channels (IC₅₀s = <20, 19, 240, and >10,000 nM, respectively).¹ It induces a concentration-dependent hyperpolarizing shift in voltage dependence of inactivation of Na_v1.3 channels at a concentration 1 μ M but has no effect on resting channels. Substitution of the Na_v1.3 domain IV voltage-sensor domain (VSD4) with the Na_v1.5 VSD4 reduces ICA 121431 potency by approximately 500-fold.

Reference

1. McCormack, K., Santos, S., Chapman, M.L., *et al.* Voltage sensor interaction site for selective small molecule inhibitors of voltage-gated sodium channels. *Proc. Natl. Acad. Sci. U.S.A.* **110**(29), E2724-E2732 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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