

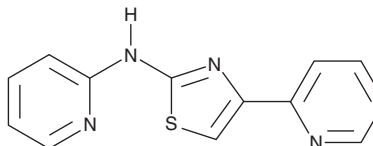
PRODUCT INFORMATION



ICA

Item No. 45333

CAS Registry No.: 3374-88-7
Formal Name: N-[4-(2-pyridinyl)-2-thiazolyl]-2-pyridinamine
MF: C₁₃H₁₀N₄S
FW: 254.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

ICA is supplied as a solid. A stock solution may be made by dissolving the ICA in the solvent of choice, which should be purged with an inert gas. ICA is soluble (≥10 mg/ml) in DMSO.

Description

ICA is an inhibitor of small conductance calcium-activated potassium channel 1 (K_{Ca}2.1/SK1) and K_{Ca}2.2/SK2 (IC₅₀s = 43 and 123 nM, respectively, in HEK293 cells expressing the rat channels).¹ It prolongs atrial action potential duration and atrial effective refractory period (AERP) and reduces burst pacing-induced atrial fibrillation in isoprenaline- or carbachol-stimulated isolated rat atrial tissue at a concentration of 10 μM.² ICA is also active against *M. tuberculosis* H37Rv (MIC = 0.39 μM).³

References

1. Gentles, R.G., Grant-Young, K., Hu, S., *et al.* Initial SAR studies on apamin-displacing 2-aminothiazole blockers of calcium-activated small conductance potassium channels. *Bioorg. Med. Chem. Lett.* **18**(19), 5316-5319 (2008).
2. Skibsbye, L., Bengaard, A.K., Uldum-Nielsen, A.M., *et al.* Inhibition of small conductance calcium-activated potassium (SK) channels prevents arrhythmias in rat atria during β-adrenergic and muscarinic receptor activation. *Front. Physiol.* **9**, 510 (2018).
3. Meissner, A., Boshoff, H.I., Vasan, M., *et al.* Structure-activity relationships of 2-aminothiazoles effective against *Mycobacterium tuberculosis*. *Bioorg. Med. Chem.* **21**(21), 6385-6397 (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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