

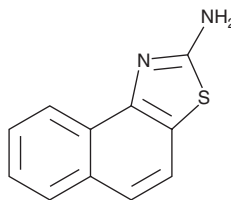
PRODUCT INFORMATION



SKA-31

Item No. 29690

CAS Registry No.: 40172-65-4
Formal Name: naphtho[1,2-d]thiazol-2-amine
Synonym: 2-Aminonaphthiazole
MF: C₁₁H₈N₂S
FW: 200.3
Purity: ≥95%
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

SKA-31 is supplied as a solid. A stock solution may be made by dissolving the SKA-31 in the solvent of choice, which should be purged with an inert gas. SKA-31 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SKA-31 in these solvents is approximately 3, 15, and 10 mg/ml, respectively.

SKA-31 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SKA-31 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SKA-31 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SKA-31 is an activator of the small- and intermediate conductance calcium-activated potassium channels K_{Ca}2.1, K_{Ca}2.2, K_{Ca}2.3, and K_{Ca}3.1 (EC₅₀s = 2.9, 1.9, 2.9, and 0.26 μM, respectively, in a patch-clamp assay).¹ It also blocks the voltage-gated potassium (K_v) channels K_v1.3, K_v1.5, K_v3.1, and K_v3.2 by 10 to 30% and the voltage-gated sodium (Na_v) channels Na_v1.2, Na_v1.4, and Na_v1.5 by 9 to 40% in a panel of 13 ion channels when used at a concentration of 25 μM. SKA-31 increases vasodilation induced by acetylcholine (Item No. 23829) in isolated mouse carotid artery (EC₅₀ = 93 nM) and induces relaxation of isolated rat mesenteric artery rings precontracted with phenylephrine (IC₅₀ = 93 nM).^{1,2} It decreases blood pressure in normotensive and angiotensin II-induced hypertensive mice when administered at a dose of 30 mg/kg.¹

References

1. Sankaranarayanan, A., Raman, G., Busch, C., *et al.* Naphtho[1,2-d]thiazol-2-ylamine (SKA-31), a new activator of K_{Ca}2 and K_{Ca}3.1 potassium channels, potentiates the endothelium-derived hyperpolarizing factor response and lowers blood pressure. *Mol. Pharmacol.* **75**(2), 281-295 (2009).
2. Khaddaj-Mallat, R., Mathew John, C., and Braun, A. SKA-31, an activator of endothelial Ca²⁺-activated K⁺ channels evokes robust vasodilation in rat mesenteric arteries. *Eur. J. Pharmacol.* **831**, 60-67 (2018).

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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