

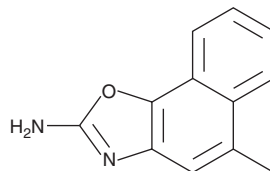
PRODUCT INFORMATION



SKA-121

Item No. 9003088

CAS Registry No.: 1820708-73-3
Formal Name: 5-methyl-naphth[2,1-d]oxazol-2-amine
MF: C₁₂H₁₀N₂O
FW: 198.2
Purity: ≥98%
UV/Vis.: λ_{max}: 253 nm
Supplied as: A crystalline 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-121 is supplied as a crystalline solid. A stock solution may be made by dissolving the SKA-121 in the solvent of choice, which should be purged with an inert gas. SKA-121 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SKA-121 is approximately 10 mg/ml in ethanol and approximately 50 mg/ml in DMSO and DMF.

SKA-121 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SKA-121 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SKA-121 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

SKA-121 is a positive-gating modulator of intermediate-conductance calcium-activated potassium channels (IKCa1/K_{Ca}3.1) with an EC₅₀ value of 109 nM using whole-cell patch-clamp electrophysiology with calcium in the internal solution.¹ It is selective for K_{Ca}3.1 over K_{Ca}2.1, K_{Ca}2.2 and K_{Ca}2.3 (EC₅₀s = 8,700, 6,800, and 4,400 nM, respectively).² It is also selective over K_{Ca}1.1 as well as voltage-gated potassium and sodium channels. SKA-121 (1 μM) potentiates calcium-evoked K_{Ca} currents by approximately 7-fold using whole-cell patch-clamp electrophysiology, an effect that can be blocked by the K_{Ca}3.1 inhibitor TRAM-34 (Item No. 23385).¹ It also potentiates calcium-evoked and basal K_{Ca} currents. In large porcine coronary arteries *ex vivo*, SKA-121 potentiates bradykinin-induced endothelium-dependent relaxation (EC₅₀ = 7.9 nM). It also lowers mean arterial blood pressure (MAP) by approximately 20 and 25 mm Hg in normo- and hypertensive mice when used at a dose of 100 mg/kg but has no effect on MAP in K_{Ca}3.1 knockout mice.²

References

1. Oliván-Viguera, A., Valero, M.S., Pinilla, E., *et al.* Vascular reactivity profile of novel K_{Ca}3.1-selective positive-gating modulators in the coronary vascular bed. *Basic Clin. Pharmacol. Toxicol.* **119**(2), 184-192 (2016).
2. Coleman, N., Brown, B.M., Oliván-Viguera, A., *et al.* New positive Ca²⁺-activated K⁺ channel gating modulators with selectivity for K_{Ca}3.1. *Mol. Pharmacol.* **86**(3), 342-357 (2014).

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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