

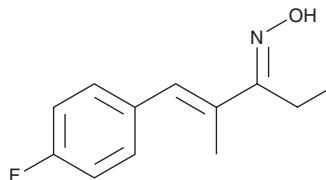
PRODUCT INFORMATION



A-967079

Item No. 15207

CAS Registry No.: 170613-55-4
Formal Name: (1E,3E)-1-(4-fluorophenyl)-2-methyl-1-penten-3-one oxime
MF: C₁₂H₁₄FNO
FW: 207.3
Purity: ≥98%
UV/Vis.: λ_{max}: 267 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

A-967079 is supplied as a crystalline solid. A stock solution may be made by dissolving the A-967079 in the solvent of choice. A-967079 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of A-967079 in ethanol and DMF is approximately 20 mg/ml and approximately 30 mg/ml in DMSO.

A-967079 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, A-967079 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. A-967079 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The transient receptor potential ankyrin 1 (TRPA1) ion channel integrates the nociception and transmission of diverse potentially damaging and noxious stimuli, including cold, electrophilic compounds, divalent cations, and mechanical stimulation.^{1,2} A-967079 is a potent, selective, and bioavailable inhibitor of the TRPA1 channel, with IC₅₀ values of 67 and 289 nM for the human and rat isoforms, respectively.³ It attenuates cold allodynia following nerve injury without producing locomotor or cardiovascular side effects.³ A-967079 also suppresses neuronal activity in response to mechanical stimulation and diminishes postoperative pain due to mechanical stimuli.^{2,4}

References

1. Klement, G., Eisele, L., Malinowsky, D., *et al.* Characterization of a ligand binding site in the human transient receptor potential ankyrin 1 pore. *Biophys. J.* **104**(4), 798-806 (2013).
2. Wei, H., Karimaa, M., Korjamo, T., *et al.* Transient receptor potential ankyrin 1 ion channel contributes to guarding pain and mechanical hypersensitivity in a rat model of postoperative pain. *Anesthesiology* **117**(1), 137-148 (2012).
3. Chen, J., Joshi, S.K., DiDomenico, S., *et al.* Selective blockade of TRPA1 channel attenuates pathological pain without altering noxious cold sensation or body temperature regulation. *Pain* **152**(5), 1165-1172 (2011).
4. McGaraughty, S., Chu, K.L., Perner, R.J., *et al.* TRPA1 modulation of spontaneous and mechanically evoked firing of spinal neurons in uninjured, osteoarthritic, and inflamed rats. *Mol. Pain* **6**, 14 (2010).

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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