

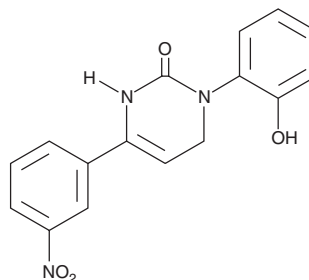
PRODUCT INFORMATION



Icilin

Item No. 10137

CAS Registry No.: 36945-98-9
Formal Name: 3,6-dihydro-1-(2-hydroxyphenyl)-4-(3-nitrophenyl)-2(1H)-pyrimidinone
Synonym: AG 3-5
MF: C₁₆H₁₃N₃O₄
FW: 311.3
Purity: ≥98%
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

Icilin is supplied as a crystalline solid. A stock solution may be made by dissolving the icilin in the solvent of choice, which should be purged with an inert gas. Icilin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of icilin in these solvents is approximately 25 mg/ml.

Icilin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, icilin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Icilin has a solubility of approximately 0.1 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

Nociceptive sensory peripheral neurons often express both heat sensitive (VR₁) and cold-sensitive (CMR1 (rat); TRPM8 (human)) receptors that are part of the transient receptor potential (TRP) superfamily. Icilin is a synthetic CMR1/TRPM8 super agonist that is 2.5-fold more efficacious and nearly 200-fold more potent than the reference cold thermosensory agonist *l*-menthol.¹ Icilin induces sensations of intense cold when applied orally in humans, and induces 'wet dog shakes', a behavioral marker of cold sensation, when given to rats. Icilin should serve as the reference cold nociceptive agonist for TRP-type ion channels in the future.²

References

- McKemy, D.D., Neuhausser, W.M., and Julius, D. Identification of a cold receptor reveals a general role for TRP channels in thermosensation. *Nature* **416(6876)**, 52-58 (2002).
- Wei, E.T. and Seid, D.A. AG-3-5: A chemical producing sensations of cold. *J. Pharm. Pharmacol.* **35(2)**, 110-112 (1983).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM