Certificate of Analysis

Product Name: **Icilin** **Catalog No.: 1531** **Batch No.: 4**

CAS Number: 36945-98-9

IUPAC Name: 3,4-Dihydro-3-(2-hydroxyphenyl)-6-(3-nitrophenyl)-(1*H*)-pyrimidin-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{13}N_3O_4$

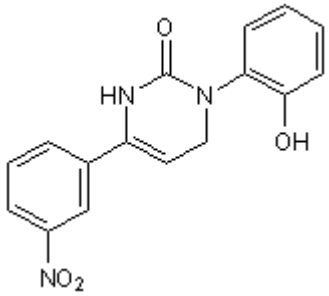
Batch Molecular Weight: 311.3

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.35 (Dichloromethane:Methanol [95:5])

HPLC: Shows >98.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.73	4.21	13.49
Found	61.58	4.18	13.59

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Description:

Cooling agent that activates the novel cold receptors TRPM8 (CMR1) and TRPA1 (ANKTM1/TRPN1), members of the TRP ion channel family. Induces currents in CMR1-expressing HEK 293 cells (EC_{50} = 0.36 µM) more potently than menthol or low temperatures. Produces "wet shakes" in vivo.

Physical and Chemical Properties:

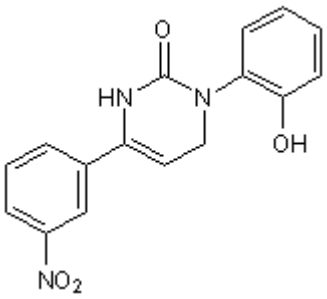
Batch Molecular Formula: $C_{16}H_{13}N_3O_4$

Batch Molecular Weight: 311.3

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Wei *et al* (1983) AG-3-5: a chemical producing sensations of cold. J.Pharm.Pharmacol. ***35*** 110. PMID: 6131976.

McKemy *et al* (2002) Identification of a cold receptor reveals a general role for TRP channels in thermosensation. Nature ***416*** 52. PMID: 11882888.

Story *et al* (2003) ANKTM1, a TRP-like channel expressed in nociceptive neurons, is activated by cold temperatures. Cell ***112*** 819. PMID: 12654248.

Behrendt *et al* (2004) Characterization of the mouse cold-menthol receptor TRPM8 and vanilloid receptor type-1 VR1 using a fluorometric imaging plate reader (FLIPR) assay. Br.J.Pharmacol. ***141*** 737. PMID: 14757700.

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