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DATASHEET

Icilin

Product overview

Name	Icilin
Cat No	HB1153
Alternative names	AG 3-5
Biological action	Agonist
Purity	>95%
Description	Potent TRPM8 channel agonist

Images



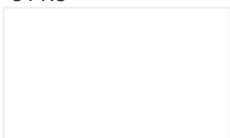
Biological Data

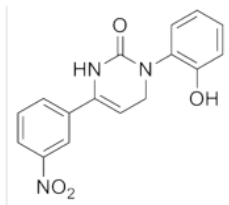
Biological description	Potent TRPM8 channel agonist. Approx 200-fold more potent than methanol (EC_{50} values of 0.36 and 66.7 μ M for icilin and methanol respectively). Cooling agent that also activates TRPA1 cold channel. Also TRPV3 channel inhibitor (IC_{50} = 0.5 μ M).
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Solubility & Handling

Solubility overview	Soluble in DMSO (100mM)
Storage instructions	Room temperature
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	3,4-Dihydro-3-(2-hydroxyphenyl)-6-(3-nitrophenyl)-(1 <i>H</i>)-pyrimidin-2-one
Molecular Weight	311.3
Chemical structure	



Molecular Formula

C₁₆H₁₃N₃O₄

CAS Number

36945-98-9

PubChem identifier

161930

SMILES

OC1=C(C=CC=C1)N1CC=C(NC1=O)C1=CC=CC(=C1)[N+](=[O-])=O

InChiKey

RCEFMOGVOYEGJN-UHFFFAOYSA-N

References

Characterization of the mouse cold-menthol receptor TRPM8 and vanilloid receptor type-1 VR1 using a fluorometric imaging plate reader (FLIPR) assay.

Behrendt HJ *et al* (2004) Br J Pharmacol 141(4)

PubMedID [14757700](#)

ANKTM1, a TRP-like channel expressed in nociceptive neurons, is activated by cold temperatures.

Story GM *et al* (2003) Cell 112(6)

PubMedID [12654248](#)

Supercooling agent icilin blocks a warmth-sensing ion channel TRPV3.

Sherkheli MA *et al* (2012) ScientificWorldJournal 2012

PubMedID [22548000](#)

Identification of a cold receptor reveals a general role for TRP channels in thermosensation.

McKemy DD *et al* (2002) Nature 416(6876)

PubMedID [11882888](#)
