Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

# 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



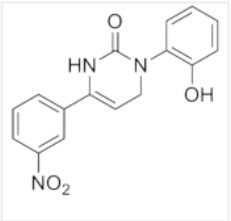

## Biological Data

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

## Solubility & Handling

| | |
|---|---|
| **Storage instructions** | Room temperature |
| **Solubility overview** | Soluble in DMSO (100mM) |
| **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*H*)-pyrimidin-2-one |
| **Molecular Weight** | 311.3 |
| **Chemical structure** |  |

| | |
|---|---|
| **Molecular Formula** | $C_{16}H_{13}N_3O_4$ |
| **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