

Certificate of Analysis

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Product Name: NS 6180

Catalog No.: 4864

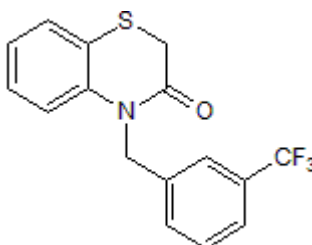
Batch No.: 1

CAS Number: 353262-04-1

IUPAC Name: 4-[[3-(Trifluoromethyl)phenyl]methyl]-2H-1,4-benzothiazin-3(4H)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₂F₃NOS
Batch Molecular Weight: 323.33
Physical Appearance: Off-white solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 59.44 | 3.74 | 4.33 |
| Found | 59.46 | 3.7 | 4.42 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent $K_{Ca3.1}$ channel blocker (IC_{50} values are 9, 14 and 15 nM for rat, human and mouse erythrocyte $K_{Ca3.1}$ channels respectively). Exhibits ~ 50% inhibition of $K_{Ca1.1}$, $K_V1.3$, and $K_V11.1$ channels, noradrenaline and dopamine transporters, L-type Ca^{2+} channels and melatonin receptors at a concentration of 10 μ M. Potently inhibits IL-2 and IFN- γ production in rat lymphocytes (IC_{50} ~ 50 nM); reduces DBNS-induced experimental colitis in rats.

Physical and Chemical Properties:

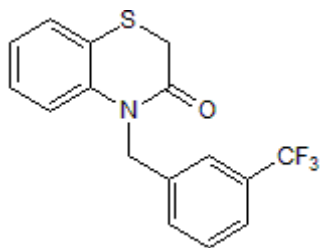
Batch Molecular Formula: $C_{16}H_{12}F_3NOS$

Batch Molecular Weight: 323.33

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Strøbæk et al (2013) NS6180, a new $K_{Ca3.1}$ channel inhibitor prevents T-cell activation and inflammation in a rat model of inflammatory bowel disease. *Br.J.Pharmacol.* **168** 432. PMID: 22891655.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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.

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