

Solubility:

Certificate of Analysis

Print Date: May 12th 2023

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Product Name: NS 1738 Catalog No.: 2995 Batch No.: 2

501684-93-1 CAS Number:

IUPAC Name: N-(5-Chloro-2-hydroxyphenyl)-N'-[2-chloro-5-(trifluoromethyl)phenyl]urea

1. PHYSICAL AND CHEMICAL PROPERTIES

 $C_{14}H_9CI_2F_3N_2O_2$ **Batch Molecular Formula:**

Batch Molecular Weight: 365.13

Physical Appearance: Off White solid

> DMSO to 100 mM ethanol to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 46.05 2.48 7.67 Found 46.09 2.64 7.64

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Product Information

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IUPAC Name: N-(5-Chloro-2-hydroxyphenyl)-N'-[2-chloro-5-(trifluoromethyl)phenyl]urea

Description:

NS 1738 is a selective positive allosteric modulator of $\alpha 7$ nicotinic acetylcholine receptors. Exhibits no substantial activity for $\alpha 4\beta 2$, $\alpha 3\beta 3$ and $\alpha 1$ -containing receptors. Displays cognitive-enhancing properties in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₄H₉Cl₂F₃N₂O₂

Batch Molecular Weight: 365.13 Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at RT

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.

References:

Freitas et al (2013) The antinociceptive effects of nicotinic receptors α7-positive allosteric modulators in murine acute and tonic pain models. J.Pharmacol.Exp.Ther. **344** 264. PMID: 23115222.

Timmermann *et al* (2007) An allosteric modulator of the α7 nicotinic acetylcholine receptor possessing cognition-enhancing properties *in vivo*. J.Pharmacol.Exp.Ther. **323** 294. PMID: 17625074.

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