

Certificate of Analysis

Print Date: Apr 6th 2021

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Product Name: NS 3728 Catalog No.: 6973 Batch No.: 1

CAS Number: 265646-85-3

IUPAC Name: N-[3,5-bis(Trifluoromethyl)phenyl]-N'-[4-bromo-2-(2H-tetrazol-5-yl)phenyl]urea

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_9BrF_6N_6O$.

Batch Molecular Weight: 495.18

Physical Appearance: Off-white solid

DMSO to 100 mM ethanol to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

Solubility:

HPLC: Shows 99.0% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 38.81 1.83 16.97 Found 38.88 1.78 16.92



Product Information

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Description:

NS 3728 is a volume-regulated anion channel (VRAC) blocker (IC $_{50}$ = 460 nM). Blocks red blood cell chloride conductance (IC $_{50}$ = 0.6 μ M). NS 3728 also inhibits Ca $^{2+}$ -activated Cl- current (CaCC) by anoctamin (ANO) in an apparently voltage-dependent manner (IC $_{50}$ against ANO1 = 2.1 and 0.7 μ M at -95 and +50 mV, respectively).

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₉BrF₆N₆O.

Batch Molecular Weight: 495.18 Physical Appearance: Off-white solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM ethanol to 50 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:

Godwin et al (2019) E-cadherin-deficient cells have synthetic lethal vulnerabilities in plasma membrane organisation, dynamics and function. Gastric Cancer **22** 273. PMID: 30066183.

Sauter et al (2015) ANO1 (TMEM16A) in pancreatic ductal adenocarcinoma (PDAC). Pflugers Arch. 467 1495. PMID: 25163766.

Kjaer *et al* (2009) Chloride channel blockers inhibit iNOS expression and NO production in IFNgamma-stimulated microglial BV2 cells. Brain Res. *1281* 24. PMID: 19446535.

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