

Certificate of Analysis

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Product Name: NS 5806

Catalog No.: 4166

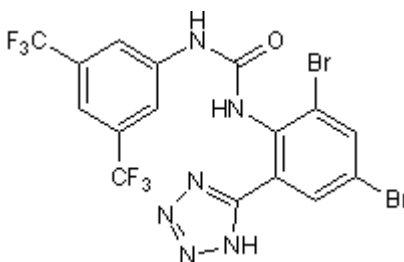
Batch No.: 1

CAS Number: 426834-69-7

IUPAC Name: *N*-[3,5-Bis(trifluoromethyl)phenyl]-*N*-[2,4-dibromo-6-(2*H*-tetrazol-5-yl)phenyl]urea

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₈Br₂F₆N₆O
Batch Molecular Weight: 574.07
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.1 (Dichloromethane:Methanol [9:1])
HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 33.38 | 1.4 | 14.64 |
| Found | 33.67 | 1.45 | 14.56 |

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

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Description:

K_v4.3 channel activator; mediates the transient outward K⁺ current (I_{to}). Increases I_{Kv4.3} peak current amplitude in CHO-K1 cells expressing K_v4.3 and KChIP2 (EC₅₀ = 5.3 μM). Inhibits K_v1.4-mediated currents independently of KChIP2. Also slows the decay of K_v4.2 and K_v4.3 currents in the presence of KChIP2.

Physical and Chemical Properties:

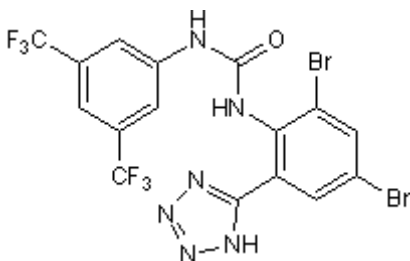
Batch Molecular Formula: C₁₆H₈Br₂F₆N₆O

Batch Molecular Weight: 574.07

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Calloe et al (2009) A transient outward potassium current activator recapitulates the electrocardiographic manifestations of Brugada syndrome. *Cardiovasc.Res.* **81** 686. PMID: 19073629.

Calloe et al (2010) Differential effects of the transient outward K⁺ current activator NS5806 in the canine left ventricle. *J.Mol.Cell.Cardiol.* **48** 191. PMID: 19632239.

Lundby et al (2010) Effect of the I_{to} activator NS5806 on cloned Kv4 channels depends on the accessory protein KChIP2. *Br.J.Pharmacol.* **160** 2028. PMID: 20649599.

Storage: Store at +4°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.

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