

Certificate of Analysis

Product Name: PF 05089771

Catalog No.: 5931

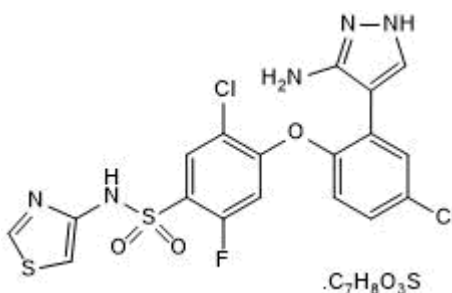
Batch No.: 1

CAS Number: 1430806-04-4

IUPAC Name: 4-[2-(3-Amino-1*H*-pyrazol-4-yl)-4-chlorophenoxy]-5-chloro-2-fluoro-*N*-4-thiazolylbenzenesulfonamide tosylate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₂Cl₂FN₅O₃S₂·C₇H₈O₃S
Batch Molecular Weight: 672.56
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.65	3	10.41
Found	44.84	2.98	10.39

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

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Description:

Potent and selective Na_v1.7 channel blocker (IC₅₀ = 8, 11 and 171 nM for mouse, human and rat Na_v1.7, respectively). Exhibits selectivity for Na_v1.7 over other Na_v1 channels (IC₅₀ values are 0.11, 0.16, 0.85, 10, 11 and 25 μM for Na_v1.2, Na_v1.6, Na_v1.1, Na_v1.4, Na_v1.3 and Na_v1.5, respectively). Also exhibits selectivity over a panel of 81 other ion channels, receptors, enzymes and transporters. Blocks spontaneous firing of inherited erythromelalgia (IEM)-derived iPSC sensory neurons in vitro.

Physical and Chemical Properties:

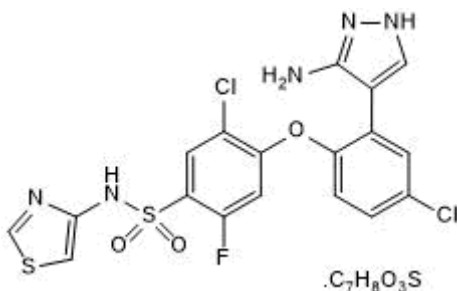
Batch Molecular Formula: C₁₈H₁₂Cl₂FN₅O₃S₂·C₇H₈O₃S

Batch Molecular Weight: 672.56

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Alexandrou et al (2016) Subtype-selective small molecule inhibitors reveal a fundamental role for Na_v1.7 in nociceptor electrogenesis, axonal conduction and presynaptic release. *PLoS One* **11** e0152405. PMID: 27050761.

Cao et al (2016) Pharmacological reversal of a pain phenotype in iPSC-derived sensory neurons and patients with inherited erythromelalgia. *Sci. Transl. Med.* **8** 335ra56. PMID: 27099175.

Storage: Desiccate at RT

Solubility & Usage Info:

DMSO 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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