

## Certificate of Analysis

**Product Name:** PLX 647 dihydrochloride

**Catalog No.:** 5102

**Batch No.:** 2

CAS Number: 1779796-38-1

IUPAC Name: 5-(1*H*-Pyrrolo[2,3-*b*]pyridin-3-ylmethyl)-*N*-[[4-(trifluoromethyl)phenyl]methyl]-2-pyridinamine dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>21</sub>H<sub>17</sub>F<sub>3</sub>N<sub>4</sub>·2HCl·¼H<sub>2</sub>O

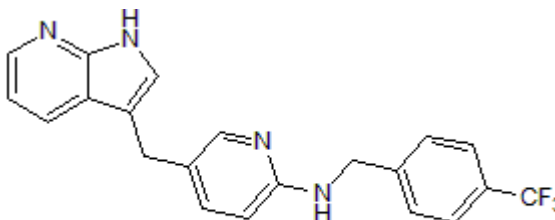
**Batch Molecular Weight:** 459.8

**Physical Appearance:** Pale yellow solid

**Solubility:** DMSO to 100 mM  
ethanol to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



2HCl

### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.4 (Chloroform:Methanol [95:5])

**HPLC:** Shows >97.7% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	54.86	4.27	12.18
Found	54.9	4.33	12.02

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**Description:**

Potent dual KIT/Fms inhibitor (IC<sub>50</sub> values are 16 and 28 nM respectively). Inhibits BCR-FMS cell proliferation and osteoclast differentiation in vitro (IC<sub>50</sub> values are 92 and 170 nM respectively). Attenuates LPS-induced TNF $\alpha$  and IL-6 release, mast cell activation and macrophage kidney proliferation in vivo.

**Physical and Chemical Properties:**

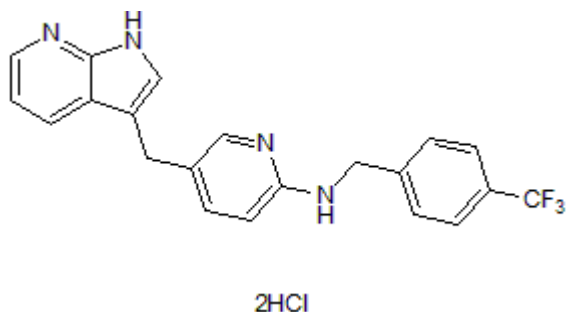
Batch Molecular Formula: C<sub>21</sub>H<sub>17</sub>F<sub>3</sub>N<sub>4</sub>·2HCl·¼H<sub>2</sub>O

Batch Molecular Weight: 459.8

Physical Appearance: Pale yellow solid

**Minimum Purity:** >97%

**Batch Molecular Structure:**



**Storage:** Store at -20°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.

**References:**

**Zhang et al** (2013) Design and pharmacology of a highly specific dual FMS and KIT kinase inhibitor. Proc.Natl.Acad.Sci.U.S.A. **110** 5689. PMID: 23493555.

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