

**Product Name:** YM 244769

**Catalog No.:** 4544

**Batch No.:** 1

CAS Number: 1780390-65-9

IUPAC Name: *N*-[(3-Aminophenyl)methyl]-6-[4-[(3-fluorophenyl)methoxy]phenoxy]-3-pyridinecarboxamide dihydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>26</sub>H<sub>22</sub>FN<sub>3</sub>O<sub>3</sub>·2HCl

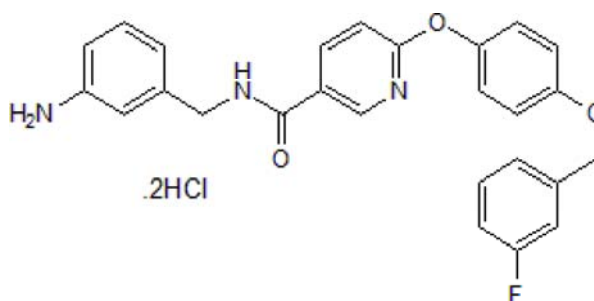
**Batch Molecular Weight:** 516.39

**Physical Appearance:** Off-white solid

**Solubility:** DMSO to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.51 (Chloroform:Methanol [9:1])

**HPLC:** Shows 99.4% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	60.47	4.68	8.14	13.73
Found	60.4	4.73	8.01	13.51

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**Description:**

Inhibitor of the reverse mode of Na<sup>+</sup>/Ca<sup>2+</sup> exchange (NCX). Potently inhibits Na<sup>+</sup>-dependent <sup>45</sup>Ca<sup>2+</sup> uptake (IC<sub>50</sub> values are 18, 68 and 96 nM for CCL39 cells transfected with NCX3, NCX1 and NCX2 respectively). Displays selectivity for NCX over other Na<sup>+</sup> and Ca<sup>2+</sup> transporters. Protects against hypoxia/reoxygenation-induced cell damage in neuronal SH-SY5Y cells expressing NCX1 and NCX3.

**Physical and Chemical Properties:**

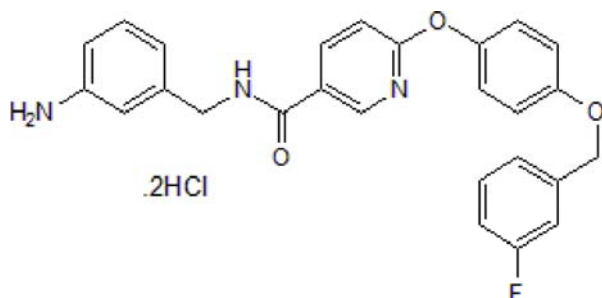
Batch Molecular Formula: C<sub>26</sub>H<sub>22</sub>FN<sub>3</sub>O<sub>3</sub>·2HCl

Batch Molecular Weight: 516.39

Physical Appearance: Off-white solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**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.

**References:**

Iwamoto *et al* (2007) Na<sup>+</sup>/Ca<sup>2+</sup> exchange inhibitors: a new class of calcium regulators. *Cardiovasc.Hematol.Disord.Drug Targets* **7** 188. PMID: 17896959.

Iwamoto and Kita (2006) YM-244769, a novel Na<sup>+</sup>/Ca<sup>2+</sup> exchange inhibitor that preferentially inhibits NCX3, efficiently protects against hypoxia/reoxygenation-induced SH-SY5Y neuronal cell damage. *Mol.Pharmacol.* **70** 2075. PMID: 16973719.

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