

# **Certificate of Analysis**

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Product Name: BIX 02189 Catalog No.: 4842 Batch No.: 1

CAS Number: 1265916-41-3

IUPAC Name: (3Z)-3-[[[3-[(Dimethylamino)methyl]phenyl]amino]phenylmethylene]-2,3-dihydro-N,N-dimethyl-2-oxo-1H-

indole-6-carboxamide

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:  $C_{27}H_{28}N_4O_2$ Batch Molecular Weight: 440.54

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM 1eq. HCl to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.18$  (Dichloromethane:Methanol [9:1])

HPLC: Shows >99.7% purity

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

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 73.61 6.41 12.72 Found 73.45 6.48 12.61

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



# **Product Information**

Print Date: Jun 26th 2014

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#### **Description:**

Selective MEK5 and ERK5 inhibitor ( $IC_{50}$  values are 1.5 and 59 nM respectively). Inhibits sorbitol-induced ERK5 phosphorylation in HeLa cells. Selective for MEK5 and ERK5 over MEK1/2, ERK1/2 and a panel of 87 kinases. Induces apoptosis in acute myeloid leukemia tumor cells.

#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>27</sub>H<sub>28</sub>N<sub>4</sub>O<sub>2</sub> Batch Molecular Weight: 440.54 Physical Appearance: Yellow solid

**Minimum Purity:** >98%

#### **Batch Molecular Structure:**

Storage: Store at -20°C

#### Solubility & Usage Info:

DMSO to 100 mM 1eq. HCl 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:

**Tatake** et al (2008) Identification of pharmacological inhibitors of the MEK5/ERK5 pathway. Biochem.Biophys.Res.Comm. **377** 120. PMID: 18834865.

**Kimura** *et al* (2010) Targeted deletion of the extracellular signal-regulated protein kinase 5 attenuates hypertrophic response and promotes pressure overload-induced apoptosis in the heart. Circ.Res. *106* 961. PMID: 20075332.

**Lopez-Royuela** *et al* (2014) Extracellular-signal-regulated kinase 5 modulates the antioxidant response by transcriptionally controlling Sirtuin 1 expression in leukemic cells. Int.J.Biochem.Cell Biol. *53* 253. PMID: 24880091.

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