



# **Certificate of Analysis**

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Product Name: VX 745 Catalog No.: 3915 Batch No.: 1

CAS Number: 209410-46-8

IUPAC Name: 5-(2,6-Dichlorophenyl)-2-[2,4-difluorophenyl)thio]-6*H*-pyrimido[1,6-*b*]pyridazin-6-one

# 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{19}H_9Cl_2F_2N_3OS$ 

**Batch Molecular Weight:** 436.26 **Physical Appearance:** Yellow solid

**Solubility:** DMSO to 100 mM ethanol to 5 mM

Storage: Store at -20°C

**Batch Molecular Structure:** 

# 2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

1H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 52.31 2.08 9.63 Found 52.78 2.01 9.55



# **Product Information**

Print Date: Dec 14th 2011

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# **Description:**

Highly potent and selective p38 $\alpha$  inhibitor (IC<sub>50</sub> = 10 nM). Also blocks TNF $\alpha$  production in LPS-stimulated HWB in vitro (IC<sub>50</sub> = 177 nM). Displays 1000-fold selectivity over closely related kinases, including ERK1, MK2 and JNK1-3.

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

Batch Molecular Formula: C<sub>19</sub>H<sub>9</sub>Cl<sub>2</sub>F<sub>2</sub>N<sub>3</sub>OS

Batch Molecular Weight: 436.26 Physical Appearance: Yellow solid

Minimum Purity: >98%

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

Storage: Store at -20°C

#### Solubility & Useage Info:

DMSO to 100 mM ethanol to 5 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:

**Bagley** et al (2007) Rapid synthesis of VX-745: p38 MAP kinase inhibition in Werner syndrome cells. Bioorg.Med.Chem.Lett. 17 5107. PMID: 17659871.

**Goldstein** *et al* (2010) Selective p38alpha inhibitors clinically evaluated for the treatment of chronic inflammatory disorders. J.Med.Chem. *53* 2345. PMID: 19950901.

**Duffy** et al (2011) The discovery of VX-745: a novel and selective p38α kinase inhibitor. ACS Med.Chem.Lett. **2** 758.

