

# **Certificate of Analysis**

Print Date: Jan 16th 2016

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Product Name: AZD 1480 Catalog No.: 5617 Batch No.: 1

CAS Number: 935666-88-9

IUPAC Name: 5-Chloro- $N^2$ -[(1S)-1-(5-fluoro-2-pyrimidinyl)ethyl]- $N^4$ -(5-methyl-1*H*-pyrazol-3-yl)-2,4-pyrimidine-2,4-diamine

## 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:  $C_{14}H_{14}CIFN_8$ .

Batch Molecular Weight: 348.77

Physical Appearance: Off White solid
Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

**Batch Molecular Structure:** 

#### 2. ANALYTICAL DATA

HPLC: Shows 98.5% purity
Chiral HPLC: Shows >99.5% purity

1H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 48.21 4.05 32.13 Found 47.95 4.05 31.98



## **Product Information**

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#### **Description:**

Potent and selective JAK2 inhibitor ( $IC_{50} < 3$  nM). Exhibits >50-fold selectivity for JAK2 over JAK3. Exhibits antitumor effects and inhibits formation of lung metastases in a mouse renal cancer model. Also inhibits STAT3 signaling, tumor angiogenesis and myeloid cell migration in vivo.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>14</sub>H<sub>14</sub>CIFN<sub>8</sub>. Batch Molecular Weight: 348.77 Physical Appearance: Off White solid

Minimum Purity: >98%

## **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:

**loannidis S** *et al* (2011) Discovery of 5-chloro-*N*<sup>2</sup>-[(1*S*)-1-(5-fluoropyrimidin-2-yl)ethyl]-*N*<sup>4</sup>-(5-methyl-1*H*-pyrazol-3-yl)pyrimidine-2,4-diamine (AZD1480) as a novel inhibitor of the Jak/Stat pathway. J.Med.Chem. *54* 262. PMID: 21138246.

Xin et al (2011) Antiangiogenic and antimetastatic activity of JAK inhibitor AZD1480. Cancer Res. 71 6601. PMID: 21920898.