



# **Certificate of Analysis**

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Product Name: GSK 690693 Catalog No.: 4144 Batch No.: 2

CAS Number: 937174-76-0

IUPAC Name: 4-[2-(4-Amino-1,2,5-oxadiazol-3-yl)-1-ethyl-7-[(3S)-3-piperidinylmethoxy)-1*H*-imidazo[4,5-c]pyridin-4-yl]-2-methyl-3-

butyn-2-ol

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{21}H_{27}N_7O_3.1\frac{1}{2}H_2O$ 

Batch Molecular Weight: 452.5

Physical Appearance: Cream solid

Solubility: DMSO to 50 mM Storage: Store at -20°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

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

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 55.74 6.68 21.67 Found 55.53 6.7 21.76



# **Product Information**

Print Date: Jun 11th 2020

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butyn-2-ol

#### **Description:**

ATP-competitive pan-Akt kinase inhibitor (IC $_{50}$  values are 2, 13 and 9 nM of Akt1, 2 and 3 respectively). Also exhibits some inhibition for AMPK, PKA and PAK and PKC isoforms (IC $_{50}$  < 100 nM). Displays antiproliferative and apoptotic effects in tumor cell lines.

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

Batch Molecular Formula: C<sub>21</sub>H<sub>27</sub>N<sub>7</sub>O<sub>3</sub>.1½H<sub>2</sub>O

Batch Molecular Weight: 452.5 Physical Appearance: Cream solid

# Minimum Purity: ≥98% Batch Molecular Structure:

Storage: Store at -20°C

# Solubility & Usage Info:

DMSO to 50 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.

## **Licensing Information:**

Sold for research purposes only under agreement from GlaxoSmithKline

# References:

**Heerding** *et al* (2008) Identification of 4-[2-(4-Amino-1,2,5-oxadiazol-3-yl)-1-ethyl-7-{(3S)-3-piperidinylmethoxyl]oxy}-1*H*-imidazo[4,5-*c*] pyridin-4-yl]-2-methyl-3-butyn-2-ol (GSK690693), a novel inhibitor of AKT kinase. J.Med.Chem. *51* 5663. PMID: 18800763.

Rhodes et al (2008) Characterization of an Akt inhibitor with potent pharmacodynamic and antitumor activity. Cancer Res. 68 2366. PMID: 18381444.