**1. PHYSICAL AND CHEMICAL PROPERTIES**

- **Batch Molecular Formula:** $C_{21}H_{27}N_7O_3\cdot\frac{3}{4}H_2O$
- **Batch Molecular Weight:** 438.99
- **Physical Appearance:** Yellow solid
- **Solubility:** DMSO to 50 mM
- **Storage:** Store at -20°C
- **Batch Molecular Structure:**

```
   OH
   / \  \
  /   \ 
N-H2     
   \___/   
   N   O
   /   \
  /     \
N   N
```

**2. ANALYTICAL DATA**

- **HPLC:** Shows 98.7% purity
- **$^1$H NMR:** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Microanalysis:**
  - **Theoretical:**
    - Carbon: 57.46
    - Hydrogen: 6.54
    - Nitrogen: 22.33
  - **Found:**
    - Carbon: 57.45
    - Hydrogen: 6.24
    - Nitrogen: 22.41
**Product Name:** GSK 690693  
**Catalog No.:** 4144  
**Batch No.:** 1  

**CAS Number:** 937174-76-0  
**IUPAC Name:** 4-[2-(4-Amino-1,2,5-oxadiazol-3-yl)-1-ethyl-7-[(3S)-3-piperidinylmethoxy]-1H-imidazo[4,5-c]pyridin-4-yl]-2-methyl-3-butyln-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$_{27}$H$_{29}$N$_{7}$O$_{8}$·0.75H$_2$O  
- **Batch Molecular Weight:** 438.99  
- **Physical Appearance:** Yellow solid  
- **Minimum Purity:** >98%  

**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.

**References:**  