

# Certificate of Analysis

**Product Name:** R 1530

**Catalog No.:** 4885

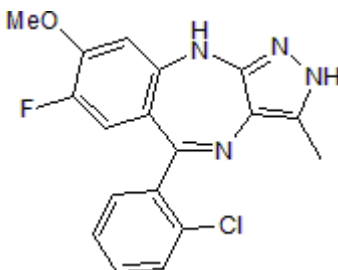
**Batch No.:** 2

CAS Number: 882531-87-5

IUPAC Name: 5-(2-Chlorophenyl)-7-fluoro-1,2-dihydro-8-methoxy-3-methylpyrazolo[3,4-b][1,4]benzodiazepine

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>14</sub>ClFN<sub>4</sub>O  
**Batch Molecular Weight:** 356.78  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.5 (Ethyl acetate:Methanol [19:1])  
**HPLC:** Shows 98.1% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	60.6	3.95	15.7
Found	60.25	4.06	15.49

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**Description:**

Multi-kinase inhibitor. Exhibits inhibitory activity against Chk2, KDR, FGFR, Aurora A kinase and Cdk2 (IC<sub>50</sub> values are 24, 34, 50, 58 and 88 nM respectively). Also binds VEGFR-2, FGFR1 and PDGFRβ (K<sub>d</sub> values are 0.015, 0.061 and 0.088 μM respectively). Displays antiproliferative activity in vitro; inhibits mitosis and angiogenesis. Orally bioavailable.

**Physical and Chemical Properties:**

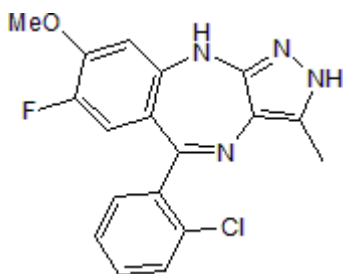
Batch Molecular Formula: C<sub>18</sub>H<sub>14</sub>ClFN<sub>4</sub>O

Batch Molecular Weight: 356.78

Physical Appearance: Yellow solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Tovar et al** (2010) Small-molecule inducer of cancer cell polyploidy promotes apoptosis or senescence: implications for therapy. *Cell Cycle* **9** 3364. PMID: 20814247.

**Liu et al** (2013) Discovery of a highly potent, orally active mitosis/angiogenesis inhibitor R1530 for the treatment of solid tumors. *ACS Med.Chem.Lett.* **4** 259.

**Storage:** Store at +4°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.

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