

## Certificate of Analysis

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**Product Name:** eCF 309

**Catalog No.:** 5955

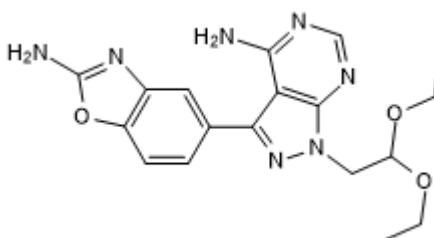
**Batch No.:** 1

CAS Number: 2001571-40-8

IUPAC Name: 3-(2-Amino-5-benzoxazolyl)-1-(2,2-diethoxyethyl)-1H-pyrazolo[3,4-d]pyrimidin-4-amine

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>21</sub>N<sub>7</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 383.41  
**Physical Appearance:** Off White solid  
**Solubility:** DMSO to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.1 (Dichloromethane:Methanol [95:5])  
**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	56.39	5.52	25.57
Found	56.37	5.6	25.45

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**Description:**

Potent mTOR inhibitor ( $IC_{50} = 15$  nM). Exhibits >60-fold selectivity for mTOR over PI 3-kinases and is inactive against a panel of other kinases. Inhibits growth of ER-positive MCF7 breast cancer cells in vitro ( $EC_{50} = 8.5$  nM). Cell permeable.

**Physical and Chemical Properties:**

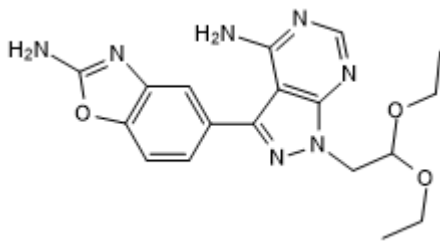
Batch Molecular Formula:  $C_{18}H_{21}N_7O_3$

Batch Molecular Weight: 383.41

Physical Appearance: Off White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 20 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:**

Fraser *et al* (2016) eCF309: a potent, selective and cell-permeable mTOR inhibitor *Med.Chem.Commun.* **4** 471.

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