

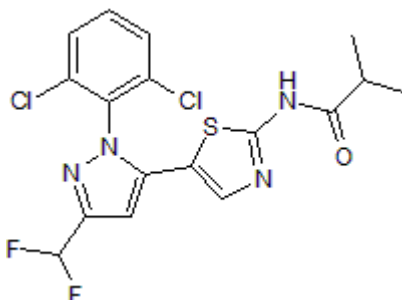
## Certificate of Analysis

www.tocris.com

**Product Name:** LIMKi 3 **Catalog No.:** 4745 **Batch No.:** 3  
**CAS Number:** 1338247-35-0  
**IUPAC Name:** *N*-[5-[1-(2,6-Dichlorophenyl)-3-(difluoromethyl)-1*H*-pyrazol-5-yl]-2-thiazolyl]-2-methylpropanamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>14</sub>Cl<sub>2</sub>F<sub>2</sub>N<sub>4</sub>OS  
**Batch Molecular Weight:** 431.29  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.55 (Ethyl acetate:Petroleum ether [1:1])  
**HPLC:** Shows 99.1% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	47.34	3.27	12.99
Found	47.35	3.27	12.88

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**Product Name:** LIMKi 3

**Catalog No.:** 4745

**Batch No.:** 3

CAS Number: 1338247-35-0

IUPAC Name: *N*-[5-[1-(2,6-Dichlorophenyl)-3-(difluoromethyl)-1*H*-pyrazol-5-yl]-2-thiazolyl]-2-methylpropanamide

**Description:**

Potent LIM kinase inhibitor (IC<sub>50</sub> values are 7 and 8 nM for LIMK1 and LIMK2 respectively). Inhibits cofilin phosphorylation in MDA-MB-231 breast cancer cells. Reduces MDA-MB-231 tumor cell invasion in a 3D matrigel invasion assay.

**Physical and Chemical Properties:**

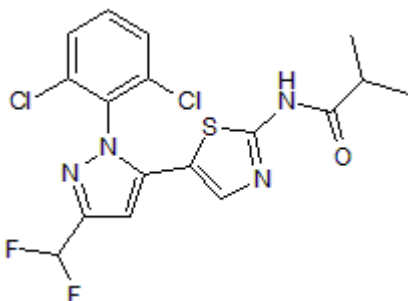
Batch Molecular Formula: C<sub>17</sub>H<sub>14</sub>Cl<sub>2</sub>F<sub>2</sub>N<sub>4</sub>OS

Batch Molecular Weight: 431.29

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Ross-Macdonald** *et al* (2008) Identification of a nonkinase target mediating cytotoxicity of novel kinase inhibitors. *Mol.Cancer Ther.* **7** 3490. PMID: 19001433.

**Scott** *et al* (2010) LIM kinases are required for invasive path generation by tumor and tumor-associated stromal cells. *J.Cell Biol.* **191** 169. PMID: 20876278.

**Sparrow** *et al* (2012) The actin-severing protein cofilin is downstream of neuregulin signaling and is essential for Schwann cell myelination. *J.Neurosci.* **32** 5284. PMID: 22496574.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol 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.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956