

**Product Name:** Ruxolitinib

**Catalog No.:** 7064

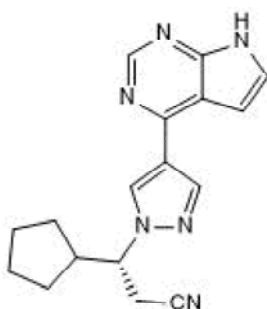
**Batch No.:** 2

CAS Number: 941678-49-5

IUPAC Name: (3*R*)-3-Cyclopentyl-3-[4-(7*H*-pyrrolo[2,3-*d*]pyrimidin-4-yl)-1*H*-pyrazol-1-yl]propanenitrile

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>18</sub>N<sub>6</sub>.  
**Batch Molecular Weight:** 306.37  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.9% purity  
**Chiral HPLC:** Shows 99.3% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	66.65	5.92	27.43
Found	66.46	5.91	27.59

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

**Product Name:** Ruxolitinib

**Catalog No.:** 7064

**Batch No.:** 2

CAS Number: 941678-49-5

IUPAC Name: (3R)-3-Cyclopentyl-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]propanenitrile

**Description:**

Ruxolitinib is a potent and selective JAK1/2 inhibitor (IC<sub>50</sub> values are 3.3 and 2.8 nM, respectively). Exhibits selectivity for JAK1/2 over Tyk2 and JAK3 (~6-fold and >130-fold, respectively). Exhibits no significant inhibition against a commercial panel of 26 additional kinases. Inhibits JAK2V617F-mediated signaling and proliferation in Ba/F3 cells and HEL cells. Increases survival rates in a JAK2V617F-driven myeloproliferative neoplasm mouse model. Ruxolitinib has been identified as targeting human host proteins that interact with SARS-CoV-2. The compound can also be used in protocols for the chemical reprogramming of somatic cells to ... Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

**Physical and Chemical Properties:**

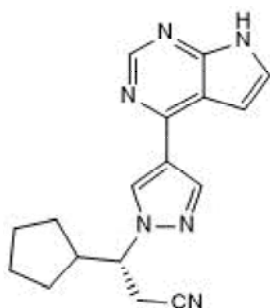
Batch Molecular Formula: C<sub>17</sub>H<sub>18</sub>N<sub>6</sub>.

Batch Molecular Weight: 306.37

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

**Guan *et al*** (2022) Chemical reprogramming of human somatic cells to pluripotent stem cells *Nature* **605** 325. PMID: 35418683.

**Gordon *et al*** (2020) A SARS-CoV-2-human protein-protein interaction map reveals drug targets and potential drug-repurposing. *Nature* **583**. PMID: 32353859.

**Quintás-Cardama *et al*** (2010) Preclinical characterization of the selective JAK1/2 inhibitor INCB018424: therapeutic implications for the treatment of myeloproliferative neoplasms. *Blood* **115** 3109. PMID: 20130243.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO 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.

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](http://www.tocris.com/distributors)

Tel: +1 612 379 2956