Catalog # 10-4511

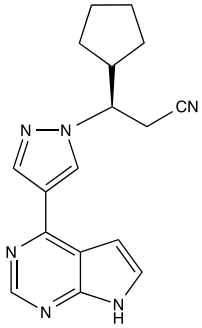
Ruxolitinib

CAS# 941678-49-5

INCB 018424

βR-Cyclopentyl-4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazole-1-propanenitrile

Lot # FBS2072



Potent and selective JAK1&2 inhibitor, IC_{50}s=2.7, 4.5 and 322 nM forJAK1, JAK2 and JAK3 respectively.[1] Blocks IL-6 signaling (IC_{50}=281 nM) and proliferation of $JAK2^{V617F+}$ Ba/F3 cells (IC_{50}=127 nM).[2] Inhibits the proinflammatory secretome of senescent cells.[3] The JAK1 S646P mutant is highly sensitive to ruxolitinib.[4] Clinically useful cancer chemotherapeutic.

1) Verstovsek *et al*. (2009), *Therapeutic potential of JAK2 inhibitors*; Hematology Am. Soc. Hematol. Educ. Program, **2009(1)** 636
2) Quintas-Cardama *et al*. (2010), *Preclinical characterization of the selective JAK1/2 inhibitor INCB01824: Therapeutic implications for the treatment of myeloproliferative neoplasms*; Blood, **115** 3109
3) Farr *et al.* (2017) *Targeting cellular senescence prevents age-related bone loss in mice*; Nat. Med., **23** 1072
4) Li *et al.* (2017) *Identification of a novel functional JAK1 S646P mutation in acute lymphoblastic leukemia*; Oncotarget, **8** 34687

PHYSICAL DATA

Molecular Weight:	306.37
Molecular Formula:	$C_{17}H_{18}N_6$
Purity:	99% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 28 mg/ml) or Ethanol (up to 15 mg/ml with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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