

Ruxolitinib

Catalogue Number : 9414958

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: INCB018424, Jakavi, Jakafi, INCB-018424

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

Molecular Formula: C₁₇H₁₈N₆

Molecular Weight: 306.4

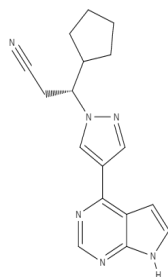
CAS Number: 941678-49-5

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Ruxolitinib is a potent Janus-associated Kinase (JAK1 IC₅₀ 2.7nM, JAK2 IC₅₀ 4.5nM) inhibitor. JAK1 and JAK2 transduce cytokine-mediated signals and are involved in interferon-gamma signaling. Ruxolitinib is reported to block IL-6 signaling and inhibits the proliferation of erythroid progenitors.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. DMSO up to 5mg/ml.

References

1. Mesa, R. A. (2010). Ruxolitinib, a selective JAK1 and JAK2 inhibitor for the treatment of myeloproliferative neoplasms and psoriasis. *Investigational drugs journal*, 13(6), 394-403.
2. Heine, A., Held, S. A. E., Daecke, S. N., Wallner, S., Yajnanarayana, S. P., Kurts, C., ... Brossart, P. (2013). The JAK-inhibitor ruxolitinib impairs dendritic cell function in vitro and in vivo. *Blood*, 122(7), 1192-1202.
3. Shi, J. G., Chen, X., McGee, R. F., Landman, R. R., Emm, T., Lo, Y., ... Yeleswaram, S. (2011). The pharmacokinetics, pharmacodynamics, and safety of orally dosed INCB018424 phosphate in healthy volunteers. *The Journal of Clinical Pharmacology*, 51(12), 1644-1654.