



Catalog # 10-3893

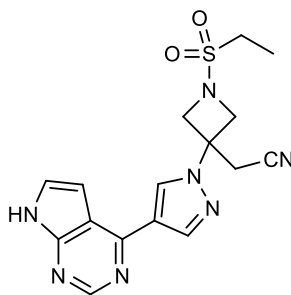
Baricitinib

CAS# 1187594-09-7

1-(Ethylsulfonyl)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]-3-azetidine-acetonitrile

INCB028050; LY3009104

Lot # X109837



Baricitinib, approved by the FDA for two inflammatory disorders, rheumatoid arthritis and alopecia areata, selectively inhibits Janus kinase 1 (IC₅₀ = 5.9 nM) and 2 (5.7 nM), over 3 (0.56 μM).¹ It thereby blocks JAK/STAT signaling, reducing cytokine release and suppressing the innate and adaptive immune systems.^{1,2} Was recently shown to significantly improve COVID-19 symptoms in a preliminary human trial, presumably through suppression of the cytokine release syndrome ("cytokine storm") induced by SARS-CoV-2 infection.³

- 1) Fridman *et al.* (2010), *Selective Inhibition of JAK1 and JAK2 Is Efficacious in Rodent Models of Arthritis: Preclinical Characterization of INCB028050*; J. Immunol. Biol., **184** 5298
- 2) Kubo *et al.* (2018), *Janus Kinase Inhibitor Baricitinib Modulates Human Innate and Adaptive Immune System*; Front. Immunol., **9** 1510
- 3) Cantini *et al.* (2020), *Baricitinib Therapy in COVID-19: A Pilot Study on Safety and Clinical Impact*; J. Infect., April 23, DOI: 10.1016/j.jinf.2020.04.017

PHYSICAL DATA

Molecular Weight: 371.42
Molecular Formula: C₁₆H₁₇N₇O₂S
Purity: 98% by HPLC
NMR: (Conforms)
Solubility: DMSO (up to 30 mg/ml) or DMF (50 mg/ml)
Physical Description: White or off-white solid
Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or DMF may be stored at -20°C for up to 3 months.

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