

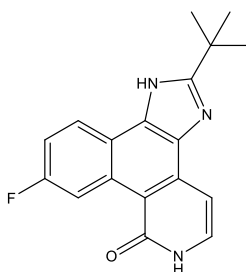
Catalog #10-5555

Pyridone 6

CAS# 457081-03-7

2-(tert-Butyl)-9-fluoro-1Hbenzo[h]imidazo[4,5-f]isoquinolin-7(6H)-one; JAK Inhibitor I

Lot # X109527



Pyridone 6 (457081-03-7) is a potent, ATP-competitive pan-JAK inhibitor. Inhibits 1, 2 and 3 (IC₅₀=1, 5 and 15 nM respectively) as well as JAK family member Tyk2 (IC₅₀=1 nM).¹ Also tested against 21 other kinases with inhibition ranging from 130 nM to >10 μM. Inhibits IL2 and IL4-dependent proliferation of CTLL cells.¹ Induces intermediate mesoderm differentiation from embryonic stem cells in a cocktail with LY-294002, CCG-1423 and retinoic acid.² Potently inhibits STAT1, STAT5 and STAT6 phosphorylation and ameliorates allergic skin inflammation in a mouse model.³ Suppresses asthmatic responses in a mouse allergic asthma model.⁴

- 1) Thompson *et al.* (2002) *Photochemical preparation of a pyridine containing tetracycle: a JAK protein kinase inhibitor* Bioorg. Med. Chem. Lett. **12** 1219
- 2) Mae *et al.* (2010) *Combination of small molecules enhances differentiation of mouse embryonic stem cells into intermediate mesoderm through BMP7-positive cells*; Biochem. Biophys. Res. Commun. **393** 877
- 3) Nakagawa *et al.* (2011) *Pyridone 6, a pan-JAK inhibitor, ameliorates allergic skin inflammation of NC/Nga mice via suppression of Th2 and enhancement of Th17*; JU. Immunol. **187** 4611
- 4) Moriwaki *et al.* (2011) *IL-13 suppresses double-stranded RNA-induced IFN-λ production in lung cells*; Biochem. Biophys. Res. Commun. **404** 922

PHYSICAL DATA

Molecular Weight:	309.34
Molecular Formula:	C ₁₈ H ₁₆ FN ₃ O
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (30 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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