Catalog # 10-2177
Tofacitinib
CAS# 477600-75-2
Tasocitinib, CP-690550
Lot # FBS2034

Potent pan-JAK inhibitor, IC_{50}s=1, 20 and 112 nM for JAK3, JAK2 and JAK1 respectively.\textsuperscript{1} Displays potent antiinflammatory\textsuperscript{2} and immunosuppressant\textsuperscript{3} activity. Promotes a white-to-brown metabolic conversion in human adipocites.\textsuperscript{4} In therapeutic use for rheumatoid arthritis.\textsuperscript{5}

1) Jiang et al. (2008), Examining the chirality, confirmation and selective kinase inhibition of 3-((3R,4R)-4-methyl-3-(methyl(7H-pyrrolo[2,3-d]pyrimidin-4-yl)amino)piperidin-1-yl)-3-oxopropanenitril (CP-690,550); J. Mol. Chem., 51 8012
3) Martina et al. (2016), Inhibition of JAK3 and PKC via Immunosuppressive Drugs Tofacitinib and Sotrastaurin Inhibits Proliferation of Human B Lymphocytes In Vitro; Transplant. Proc., 48 3046
5) Dowty et al. (2014), Preclinical to clinical translation of tofacitinib, a Janus kinase inhibitor, in rheumatoid arthritis; J. Pharmacol. Exp. Ther., 348 165

**PHYSICAL DATA**

Molecular Weight: 312.37
Molecular Formula: C_{16}H_{20}N_{6}O
Purity: 99% by HPLC and TLC
NMR: (Conforms)
Solubility: DMSO (up to 100 mg/ml) or Ethanol (up to 100 mg/ml)
Physical Description: Off-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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