



LKT Laboratories, Inc.

WHI-P131

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## Product Information

Product ID W2933

CAS No. 202475-60-3

Chemical Name 4-[(4'-hydroxyphenyl)amino]-6,7-dimethoxyquinazoline

Synonym JANEX-1

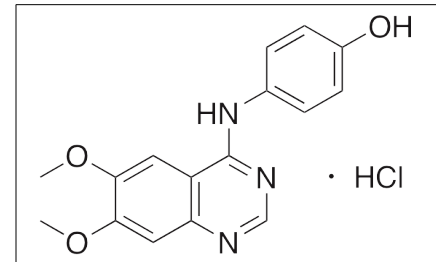
Formula  $C_{16}H_{15}N_3O_3 \cdot HCl$

Formula Wt. 333.77

Melting Point

Purity  $\geq 98\%$

Solubility DMSO (25mg/ml)



**Bulk quantities available upon request**

Product ID Size

W2933 50 mg

W2933 250 mg

Store Temp 4°C

Ship Temp Ambient

**Description** WHI-P131 is an inhibitor of JAK3 and EGFR that exhibits anticancer chemotherapeutic, chemopreventive, anti-inflammatory, and anti-diabetic properties. WHI-P131 is prophylactic against carcinogenesis induced by UVB exposure in vivo, delaying lesion appearance and decreasing lesion volume and number. WHI-P131 decreases plasma creatine kinase and lactate dehydrogenase activity, decreasing infarct size, myocardial apoptosis and deterioration, and inflammation in animal models of ischemia. Additionally, WHI-P131 decreases TNF- $\alpha$ -induced expression of ICAM-1, VCAM-1, and fractalkine, improving myocardial permeability in cellular models. WHI-P131 displays potential as a prophylactic treatment for diabetes, as its inhibition of JAK3 and suppression of NF- $\kappa$ B results in decreased production of NO and iNOS, preventing destruction of pancreatic islet cells.

**References** Oh YB, Ahn M, Lee SM, et al. Inhibition of Janus activated kinase-3 protects against myocardial ischemia and reperfusion injury in mice. *Exp Mol Med.* 2013 May 17;45:e23. PMID: 23680658.

Lee JE, Lee AS, Kim DH, et al. Janex-1, a JAK3 inhibitor, ameliorates tumor necrosis factor- $\alpha$ -induced expression of cell adhesion molecules and improves myocardial vascular permeability in endotoxemic mice. *Int J Mol Med.* 2012 May;29(5):864-70. PMID: 22344597

Uckun FM, Dibirdik I, Qazi S. Prevention of UVB-induced skin inflammation, genotoxicity, and photocarcinogenesis in mice by WHI-P131, a dual-function inhibitor of Janus kinase 3 and EGF receptor kinase. *Arzneimittelforschung.* 2010;60(4):218-25. PMID: 20486473

Lv N, Kim EK, Song MY, et al. JANEX-1, a JAK3 inhibitor, protects pancreatic islets from cytokine toxicity through downregulation of NF- $\kappa$ B activation and the JAK/STAT pathway. *Exp Cell Res.* 2009 Jul 15;315(12):2064-71. PMID: 19414010

Linwong W, Hirasawa N, Aoyama S, et al. Inhibition of the antigen-induced activation of rodent mast cells by putative Janus kinase 3 inhibitors WHI-P131 and WHI-P154 in a Janus kinase 3-independent manner. *Br J Pharmacol.* 2005 Jul;145(6):818-28. PMID: 15852029.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.