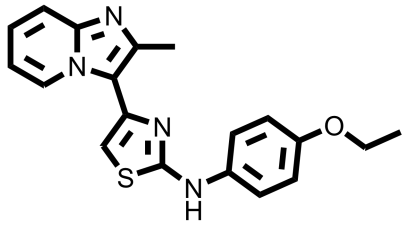
Xcess Biosciences Inc.
7144 N Harlem Ave #169
Chicago, IL 60631 USA

http://www.xcessbio.com
Toll free: 1-866-706-2330
Fax: 1-619- 810-0718
Email: info@xcessbio.com

Hedgehog Antagonist JK184

Chemical Name: N-(4-Ethoxyphenyl)-4-(2-methylimidazo[1,2-a]pyridin-3-yl)-2-thiazolamine



Molecular Weight:	350.44
Formula:	$C_{19}H_{18}N_4OS$
Purity:	≥ 98%
CAS#:	315703-52-7
Solubility:	DMSO up to 100mM
Storage	Powder: 4°C 1 year DMSO: 4°C 1 month -20°C 3 months

Biological Activity:

JK184 is a potent and cell-permeable inhibitor of hedgehog (Hh) signaling downstream of Smo, identified by a cell-based Hh pathway reporter screening. JK184 was found to inhibit Adh7 (IC_{50} ~210 nM), the class IV alcohol dehydrogenase as well as act as a microtubule depolymerizing agent in vitro. JK184 inhibits Hh agonit-induced Gli transcriptional activity (IC_{50} ~30 nM) as well as Gli1 and Ptc1 mRNA expression in a dose-dependent manner in 10T1/2 cells. It shows antiproliferative activity in a range of cancer cell lines (IC_{50} ~ 3 - 21 nM), and inhibits the growth of two xenografted tumors in mice in vivo.

How to Use:

In vitro: JK184 was suggested to use at 1-5 μM concentration in vitro and in the cellular assays.

In vivo: JK184 was dosed orally 0.2 mg/mouse once per day.

Reference:

1. Lee J, et al. A small-molecule antagonist of the hedgehog signaling pathway. (2007) *Chembiochem* 8(16):1916-9.
2. Cupido T, et al. The imidazopyridine derivative JK184 reveals dual roles for microtubules in Hedgehog signaling. (2009) *Angew Chem Int Ed Engl.* 48(13):2321-4.