Hedgehog Antagonist JK184

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>350.44</td>
</tr>
<tr>
<td>Formula</td>
<td>C₁₉H₁₈N₄O₂S</td>
</tr>
<tr>
<td>Purity</td>
<td>≥ 98%</td>
</tr>
<tr>
<td>CAS#</td>
<td>315703-52-7</td>
</tr>
<tr>
<td>Solubility</td>
<td>DMSO up to 100mM</td>
</tr>
<tr>
<td>Storage</td>
<td>Powder: 4°C 1 year  DMSO: 4°C 1 month -20°C 3 months</td>
</tr>
</tbody>
</table>

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 (IC₅₀ ~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 (IC₅₀ ~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 (IC₅₀ ~ 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:


Products are for research use only. Not for human use.