Hedgehog Antagonist Vismodegib (GDC-0449)

Chemical Name: 2-Chloro-N-(4-chloro-3-pyridin-2-ylphenyl)-4-methylsulfonylbenzamide

<table>
<thead>
<tr>
<th>Molecular Weight:</th>
<th>421.30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula:</td>
<td>C_{19}H_{14}Cl_{2}N_{2}O_{3}S</td>
</tr>
<tr>
<td>Purity:</td>
<td>≥98%</td>
</tr>
<tr>
<td>CAS#:</td>
<td>879085-55-9</td>
</tr>
<tr>
<td>Solubility:</td>
<td>DMSO up to 100 mM</td>
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</tbody>
</table>
| Storage:          | Powder: 4°C 1 year  
                          DMSO: 4°C 1 month  
                                -20°C 3 months |

Biological Activity:

Vismodegib (GDC-0449) is a potent and specific hedgehog pathway inhibitor with an IC$_{50}$ of 3 nM. It has been approved by FDA to treat BCC, and also in multiple clinical trials to treat advanced solid tumors. It blocks the activities of the Hedgehog-ligand cell surface receptors PTCH and/or SMO and suppressing Hedgehog signaling. It prevents multiple ATP-binding cassette (ABC) transporters. GDC-0449 also exhibited efficacy in medulloblastoma animal models and primary pancreatic cancer xenograft models. It was shown to inhibit cell growth in cisplatin-resistant lung cancer cells.

How to Use:

**In vitro:** GDC-0449 was used at 5-10 µM concentration in the cellular assays.

**In vivo:** GDC-0449 was dosed orally 12.5 mg/kg twice per day (lowest dose), up to 100 mg/kg twice per day (formulated as a suspension in 0.5% methylcellulose, 0.2% Tween-80 (MCT))

Reference:


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