

Des1 Inhibitor (Compound 34)

Catalog number: B-0027

Molecular Formula: C₁₅H₁₂ClN₅O₂

MW: 329.74

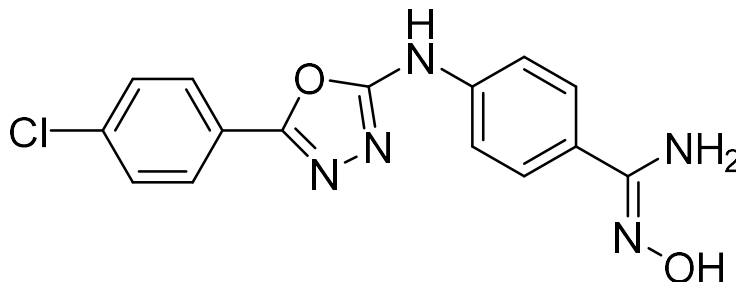
CAS: 1847471-67-3

Solubility: DMSO 1mg/mL

Storage and Handling: 4 °C or below, store stock solutions in the freezer

Background: SKI-II is a commonly used inhibitor of both sphingosine kinase I (SPHK1) and 2 (SPHK2). Recently it has been shown to inhibit dihydroceramide desaturase (Des1) which Aurelio et al. suggest is actually responsible for its anti-proliferative activity, not SPHK inhibition. Compound **34** is an analog of SKI-II which is a selective Des1 inhibitor and shows no activity against either SPHK1 or SPHK2. **34** inhibits PC3 cell growth (GIC₅₀ = 0.34 μM) but some of this may be due to inhibition of another target.

References: L. Aurelio, C.V. Scullino, *et al.*. "From Sphingosine Kinase to Dihydroceramide desaturase: A Structure-Activity Relationship (SAR) Study of the Enzyme Inhibitory and Anticancer Activity of 4-((4-(4-Chlorophenyl)thiazol-2-yl)amino)phenol (SKI-II)" *J. Med. Chem.*, **59**, 965-984, DOI: 10.1021/acs.jmedchem.5b01439.



Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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