

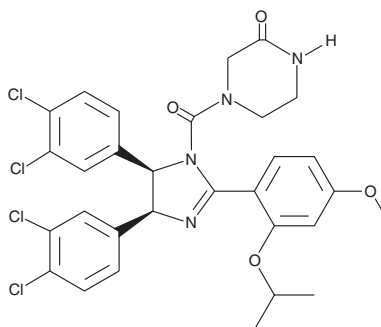
PRODUCT INFORMATION



Caylin-1

Item No. 10004985

CAS Registry No.: 1207480-88-3
Formal Name: 4-[4,5-bis(3,4-chlorophenyl)-2-(2-isopropoxy-4-methoxy-phenyl)-4,5-dihydro-imidazole-1-carboxyl]-piperazin-2-one
MF: C₃₀H₂₈Cl₄N₄O₄
FW: 650.4
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Caylin-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the caylin-1 in the solvent of choice, which should be purged with an inert gas. Caylin-1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of caylin-1 in these solvents is at least 30 mg/ml.

Caylin-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, caylin-1 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Caylin-1 has a solubility of 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nutlin-3 is an activator of p53 that functions by inhibiting the interaction of p53 with MDM2, a negative regulator of p53 activity.¹ Caylin-1 is a nutlin-3 analog which contains chlorine substituents at the 3 and 4 positions on two of the phenyl rings rather than a single 4-chloro as seen in nutlin-3. At high concentrations, caylin-1 inhibits the growth of HCT116 cells with an IC₅₀ value of approximately 7 μM, making it about 7-fold less potent than nutlin-3 in the same assay. Interestingly, at concentrations at or below 1 μM, caylin-1 promotes the growth of HCT116 cells approximately 20% compared to untreated cells.² The mechanism of the growth promoting properties of caylin-1 have not yet been elucidated.

References

1. Vassilev, L.T., Vu, B.T., Graves, B., *et al.* *In vivo* activation of the p53 pathway by small-molecule antagonists of MDM2. *Science* **303**, 844-848 (2004).
2. Meade, E. [Unpublished] (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM