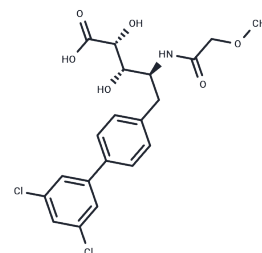


CC0651

Chemical Properties

CAS No. : 1319207-44-7
Formula: C₂₀H₂₁Cl₂NO₆
Molecular Weight: 442.29
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	CC0651 is an allosteric inhibitor of the human Cdc34 ubiquitin-conjugating enzyme. CC0651 potently inhibits the ubiquitination of p27Kip1 (IC ₅₀ : 1.72 μM).
Targets(IC ₅₀)	Others
In vitro	CC0651 acts by trapping a weak interaction between ubiquitin and the E2 donor ubiquitin-binding site. CC0651 completely inhibits the assembly of polyubiquitin chains and decreased formation of free triubiquitin and, to a lesser extent, hCdc34 monoubiquitin, but has no effect on the production of diubiquitin [1]. CC0651 strongly impairs the rate of ubiquitin chain initiation on the substrate by SCFCdc4, as measured by the monoubiquitination of Sic1 by K0 ubiquitin. CC0651 actually potentiates the formation of both ubiquitin dimers and monoubiquitinated hCdc34, concordant with the observed accumulation of the hCdc34 conjugate in cells treated with the ester derivative of CC0651. A quantitative SCF ubiquitination assay with a β-Catenin substrate peptide yields a value of IC ₅₀ of 18±1 μM for CC0651 inhibition, similar to the effective concentrations observed in the NMR and TR-FRET assays [2].

Solubility Information

Solubility	DMSO: 56 mg/mL (126.61 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.261 mL	11.3048 mL	22.6096 mL
5 mM	0.4522 mL	2.261 mL	4.5219 mL
10 mM	0.2261 mL	1.1305 mL	2.261 mL
50 mM	0.0452 mL	0.2261 mL	0.4522 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Ceccarelli DF, et al. An allosteric inhibitor of the human Cdc34 ubiquitin-conjugating enzyme. Cell. 2011 Jun 24;145 (7):1075-87.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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