
Product Data Sheet

Product Name: Cbz-B3A
 Cat. No.: GC30229

Chemical Properties

Cas. No. 1884710-81-9

SMILES O=C(OC(C)(C)C)N/C(NC(OC(C)(C)C)=O)=N/CCC[C@H](NC(OC(C)(C)C)=O)C(NCCCCCNC(OCC1=CC=CC=C1)=O)=O

Formula C₃₅H₅₈N₆O₉ M.Wt 706.87

Solubility DMSO : 20 mg/mL (28.29 mM; Need ultrasonic and warming) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Cbz-B3A is a potent and selective inhibitor of mTORC1 signaling that appear to bind to ubiquilins 1, 2, and 4, and Cbz-B3A inhibits the phosphorylation of eIF4E-binding protein 1 (4EBP1).

Cbz-B3A slows cellular growth of some human leukemia cell lines, but is not cytotoxic. Cbz-B3A has a larger effect on the phosphorylation of 4EBP1 than p70S6k compared to rapamycin. Cbz-B3A inhibits mTOR through Ubiquilins. Cbz-B3A decreases the incorporation of [35S]methionine/cysteine into protein in a dose-dependent manner, with maximal inhibition of 68% observed at 10 μM, and an EC50 of ~3 μM.

[1]. Coffey RT, et al. Ubiquilin-mediated Small Molecule Inhibition of Mammalian Target of Rapamycin Complex 1 (mTORC1) Signaling. J Biol Chem. 2016 Mar 4;291(10):5221-33.

Caution: Product has not been fully validated for medical applications. For research use only.

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