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Cilliobrevin D

产品编号: D50734

CAS: 1370554-01-0

分子式: C17H8Cl3N3O2

纯度: ≥98%

InChi: InChI=1S/C17H8Cl3N3O2/c18-8-1-3-10(13(20)5-8)15(24)12(7-21)16-22-14-6-9(19)2-4-11(14)17(25)23-16/h1-6,22H,(H,23,25)/b16-12-

InChi Key: JKKSCGHDRHRWOQ-VBKFSLOCSA-N

Smiles: N#CC(=C1NC(=O)C2=CC=C(Cl)C=C2N1)C(=O)C1C=CC(Cl)=CC=1Cl

外观: 固体粉末

作用通路: Hedgehog

溶解性: DMSO up to 25mM

保存条件: Store in dry, dark place for one year.

产品介绍: Ciliobrevin D is the first specific small molecule antagonist of cytoplasmic dynein, and can inhibit both cytoplasmic dynein 1 and 2. The conversion of chemical energy into mechanical force by AAA+ ATPases is integral to cellular processes, including DNA replication, protein unfolding, cargo transport and membrane fusion. The AAA+ ATPase motor cytoplasmic dynein regulates ciliary trafficking, mitotic spindle formation and organelle transport. Ciliobrevin D perturbs protein trafficking within the primary cilium, leading to their malformation and Hedgehog signaling blockade. It also prevents spindle pole focusing, kinetochore–microtubule attachment, melanosome aggregation and peroxisomemotility in cultured cells. Ciliobrevin D can block dynein-dependent microtubule gliding and ATPase activity in vitro. Therefore it serves as a useful probe for dynein-dependent processes and studying cellular processes that require this microtubule motor.