Product Data Sheet

Product Name: CCT 031374 hydrobromide
Cat. No.: GC10253

Chemical Properties

Cas. No.	1219184-91-4		
Chemical Name	1-([1,1'-biphenyl]-4-yl)-2-(2H-benzo[d]imidazo[1,2-a]imidazol-9(3H)-yl)ethanone hydrobromide		
SMILES	O=C(C1=CC=C(C2=CC=CC=C2)C=C1)CN3C4=CC=CC=C4N5CCN=C53.Br		
Formula	$C_{23}H_{19}N_3O.HBr$	M.Wt	434.33
Solubility	<21.72mg/ml in DMSO	Storage	Desiccate at RT
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	CCT 031374 hydrobromide		

Background

CCT 031374 hydrobromide is a selective inhibitor of Wnt/β-catenin signaling pathway [1].

The Wnt/β-catenin pathway is activated by the binding of Wnt ligand to a complex comprising LRP5/6 and Frizzled (Fz) receptors and then activates transcription factor/β-catenin-dependent transcription [1].

CCT 031374 hydrobromide is a selective Wnt/β-catenin signaling pathway inhibitor. CCT031374 inhibited BIO-induced β-catenin accumulation in L-cells with IC50 value of 6.1 μM. In HCT116 human colon cancer cell line, CCT031374 inhibited cell proliferation by inducing apoptosis. In mouse L-cells, BIO, a GSK-3 inhibitor, significantly increased total β-catenin levels. While CCT031374 inhibited BIO-induced accumulation of β-catenin in both nuclear and cytosolic. In U2OS GFP-β-catenin human osteosarcoma cells, CCT031374 induced the formation of GFP-β-catenin aggregates. In human neurogenic embryoid bodies, CCT031374 reduced the mRNA levels of endogenous LEF1. Also,

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CCT031374 inhibited cell growth with GI values of 11.5, 13.9, 13.2, 9.6 and 44 μM in HT29, HCT116, SW480, SNU475 and CCD841Co cancer cell lines, respectively [1].

Reference:

[1]. Ewan K, Pajak B, Stubbs M, et al. A useful approach to identify novel small-molecule inhibitors of Wnt-dependent transcription. Cancer Res, 2010, 70(14): 5963-5973.

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