

Product Data Sheet

Product Name: BC-DXI-843

Cat. No.: GC60625

Chemical Properties

Cas. No. 2421117-98-6

SMILES COC(C=C1)=CC=C1C2=CSC(NC([C@@H](NS(C3=CC=C(C)C=C3)(=O)=O)CC4=CNC5=C4C=CC=C5)=O)=N2

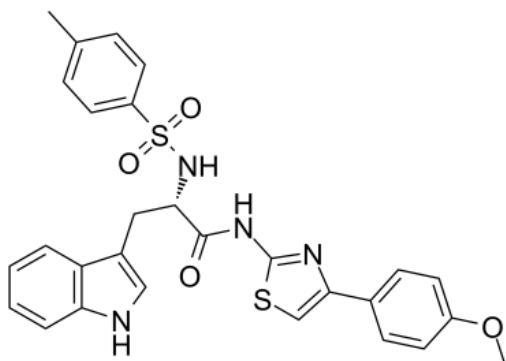
Formula $C_{28}H_{26}N_4O_4S_2$ M.Wt 546.66

Solubility DMSO: 250 mg/mL (457.32 mM) Storage 4°C, protect from light

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

BC-DXI-843 is a potent and specific AIMP2-DX2 inhibitor with an IC₅₀ of 0.92 μM, more than 100-

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fold selectivity over AIMP2 (IC₅₀ >100 µM) in a luciferase assay. BC-DXI-843 acts as a promising lead targeting AIMP2-DX2 in lung cancer[1].

BC-DXI-843 (0.0316-31.6 µM; 72 hours) suppresses cancer cell proliferation in a DX2-dependent manner. The EC₅₀ in A549 cells is 1.20 µM, which is similar to the IC₅₀ for inhibition of DX2. However, no inhibition of WI-26 cells is observed, suggesting that BC-DXI-843 specifically reduces the viability of cancer cells[1]. Cell Proliferation Assay[1] Cell Line: A549 cancer cells and WI-26 normal cells

BC-DXI-843 (50 mg/kg; intraperitoneally administered; every other day for 15 days) demonstrates in vivo efficacy in a tumor xenograft mouse model (H460 cells)[1]. Animal Model: 7-week-old female BALB/cSLC-nu/nu mice bearing H460 cells xenograft[1]

[1]. Aneesh Sivaraman, et al. Synthesis and Structure-Activity Relationships of Arylsulfonamides as AIMP2-DX2 Inhibitors for the Development of a Novel Anticancer Therapy. J Med Chem. 2020 May 28;63(10):5139-5158.

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