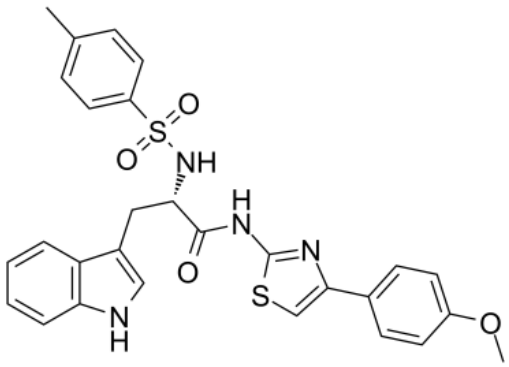
Product Data Sheet

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-

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.

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