

Product Data Sheet

Product Name: CMLD-2
Cat. No.: GC61567

Chemical Properties

Cas. No. 958843-91-9

SMILES O=C1C=C(C2=CC=CC=C2)C3=C(OC)C=C(OC)C(C(C4=CC=C(OC)C=C4)CC(N5CCC(C5)=O)=C3O1

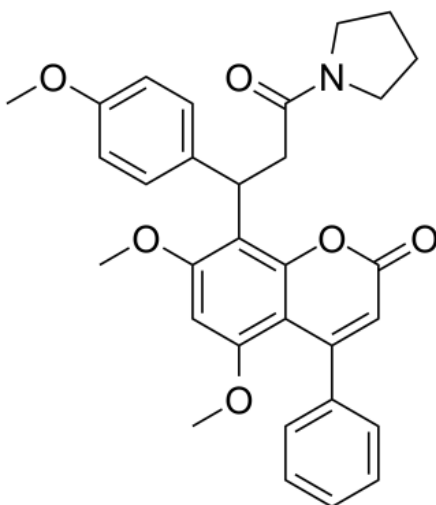
Formula $C_{31}H_{31}NO_6$ M.Wt 513.58

Solubility DMSO: 50 mg/mL (97.36 mM) 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

CMLD-2, an inhibitor of HuR-ARE interaction, competitively binds HuR protein disrupting its interaction with adenine-uridine rich elements (ARE)-containing mRNAs ($K_i=350$ nM). CMLD-2 induces apoptosis exhibits antitumor activity in different cancer cells as colon, pancreatic, thyroid and lung cancer cell lines. Hu antigen R (HuR) is an RNA binding protein, can regulate target mRNAs stability and translation[1][2].

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

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CMLD-2 (1-75 μ M; 24-72 h) inhibits thyroid cancer cell viability[2]. CMLD-2 (20-30 μ M; 24-48 h) activates caspases and induces apoptotic cell death in H1299 and A549 cells[3]. CMLD-2 (30 μ M; 24-48 h) induces G1 cell cycle arrest and mitochondrial perturbation in H1299 and A549 cell[3]. CMLD-2 (30 μ M; 24-48 h) reduces expression of HuR and HuR-regulated mRNAs and proteins in H1299 cells[3]. CMLD-2 (35 μ M; 72 h) decreases directional migration capability in SW1736, 8505C, BCPAP and K1 cells. CMLD-2 induces a strong decrease of MAD2 mRNA levels in SW1736, 8505C, BCPAP and K1 cells[2]. Cell Viability Assay[2] Cell Line: SW1736, 8505C, BCPAP and K1 cells

[1]. Wu X, et, al. Identification and validation of novel small molecule disruptors of HuR-mRNA interaction. ACS Chem Biol. 2015 Jun 19;10(6):1476-84. [2]. Allegri, et, al. The HuR CMLD-2 inhibitor exhibits antitumor effects via MAD2 downregulation in thyroid cancer cells. Sci Rep. 2019 May 14;9(1):7374. [3]. Muralidharan R, et, al. HuR-targeted small molecule inhibitor exhibits cytotoxicity towards human lung cancer cells. Sci Rep. 2017 Aug 30;7(1):9694.

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