

Product Data Sheet

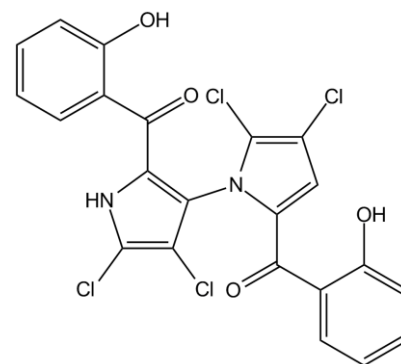
Chemical Properties

Product Name: Marinopyrrole A

Cas No.: 1227962-62-0

M.Wt: 510.15

Formula: C₂₂H₁₂Cl₄N₂O₄



Chemical Name:

Canonical SMILES: OC1=CC=CC=C1C(=O)C2=C(N3C(C4=CC=CC=C4O)=O)=CC(Cl)=C3Cl)C(Cl)=C(Cl)N2)=O

Solubility: Soluble in DMSO

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.

Shopping Condition: Evaluation sample solution : ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets : Apoptosis

Pathways: Bcl-2 Family

Description:

Marinopyrrole A is a selective inhibitor of Mcl-1 with IC₅₀ value of 10.1 μM [1]. Marinopyrrole A is a natural product from a species of marine-derived streptomycetes and is reported to be an antagonist of Mcl-1. Mcl-1 is a member of the anti-apoptotic Bcl-2 family, which is a well-validated drug target for cancer treatment. NMR titration experiments show that Marinopyrrole A can directly interact with Mcl-1. It can prevent Bim-BH3 peptides from binding

to Mcl-1 but not Bcl-XL. The cell based assay shows a high selectivity of Marinopyrrole A. Treatment with Marinopyrrole A inhibit the viability of K562 cells transfected with Mcl-1 gene with EC50 value of 1.6 μ M. The selectivity is more than 40-fold greater over the cells transfected with Bcl-XL gene. Moreover, Marinopyrrole A can decreases Mcl-1 expression by increasing the cleavage of caspase-3 and PARP. Marinopyrrole A is also reported to completely restore the sensitivity of multidrug resistant leukemia cells to ABT-737 [1].

Reference:

[1] Doi K, Li R, Sung SS, et al. Discovery of marinopyrrole A (maritoclax) as a selective Mcl-1 antagonist that overcomes ABT-737 resistance by binding to and targeting Mcl-1 for proteasomal degradation. *J Biol Chem.* 2012 Mar, 287(13): 10224-35.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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