Product Data Sheet

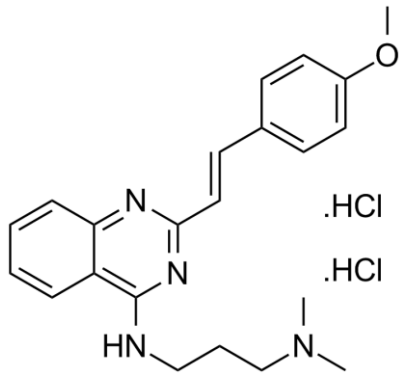
Chemical Properties

Product Name: CP 31398 dihydrochloride

Cas No.: 1217195-61-3

M.Wt: 435.39

Formula: C22H26N4O.HCl



Chemical Name: (E)-N1-(2-(4-methoxystyryl)quinazolin-4-yl)-N3,N3-dimethylpropane-1,3-diamine dihydrochloride

Canonical SMILES: CN(C)CCCNC1=C2C=CC=CC2=NC(/C=C\C3=CC=C(OC)C=C3)=N1.Cl.Cl

Solubility: Soluble in DMSO > 10 mM

Storage: Desiccate at RT

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: p53

Description:

CP 31398 dihydrochloride is a potent activator of p53 with maximum tolerated dose of 400 ppm [2].
Tumor protein p53 (p53) is a crucial protein in multicellular organisms and plays an important role in preventing cancer formation. Many studies have shown that activated p53 regulates the expression of p21 which binds to the G1-S/CDK complexes (molecules important for the G1/S

transition in the cell cycle) and inhibits their activity [1].
CP 31398 dihydrochloride is a potent p53 stabilization and is regarded as a promising agent which combines with chemotherapy drugs for cancer treatment. When tested with a panel of 9 human cancer cell lines, CP 31398 dihydrochloride treatment resulted in cell apoptosis in mutant or wild-type p53 expressed cell lines (SW480, SKBr3, PA1, U20S, HCT116, and Saos-2) and enhanced chemotherapeutic drugs effect on cell killing while had no effect on cell lines not expressed p53 [1]. In four human HNSCC cell lines (JHU-O29, UMSCC-22A and Fadu), administration of CP 31398 dihydrochloride for 96 h inhibited the cell growth by accumulating p53 expression [2].
In colon adenocarcinomas F344 rast model, combination low dose of CP 31398 dihydrochloride with celecoxib markedly suppressed colon adenocarcinoma incidence (78%) and multiplicity (90%) by enhancing the expression of p53 which indicated that a combination of low dose CP-31398 dihydrochloride and celecoxib could be a promising therapy for colon cancer in clinic [3].

***Reference**:*

[1]. Takimoto, R., et al., The mutant p53-conformation modifying drug, CP-31398, can induce apoptosis of human cancer cells and can stabilize wild-type p53 protein. Cancer Biol Ther, 2002. 1(1): p. 47-55.
[2]. Roh, J.L., et al., p53-Reactivating small molecules induce apoptosis and enhance chemotherapeutic cytotoxicity in head and neck squamous cell carcinoma. Oral Oncol, 2011. 47(1): p. 8-15.
[3]. Rao, C.V., et al., Inhibition of azoxymethane-induced colorectal cancer by CP-31398, a TP53 modulator, alone or in combination with low doses of celecoxib in male F344 rats. Cancer Res, 2009. 69(20): p. 8175-82.

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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