

Product Data Sheet

Product Name: DMA trihydrochloride

Cat. No.: GC34098

Chemical Properties

Cas. No. 2095832-33-8

SMILES CN1CCN(C2=CC=C3C(N=C(C4=CC=C5C(N=C(C6=CC=C(OC)C(OC)=C6)N5)=C4)N3)=C2)CC1.[H]Cl.[H]Cl.[H]Cl

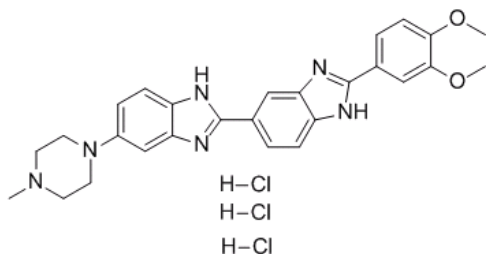
Formula $C_{27}H_{31}Cl_3N_6O_2$ M.Wt 577.93

Solubility Water : 15.9 mg/mL (27.51 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



Protocol

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Cell experiment: Various human tumor cells (U87, HeLa and MCF7) are maintained as monolayer at 37°C in 5% CO₂ using DMEM medium. Approximately 3000-8000 cells/well are seeded in 96-well plates containing 200 µL of medium and incubated for 24 h. The culture medium is replaced by fresh medium containing 1, 10, 50, 100 µM of DMA (6c) and incubated for 24, 48 and 72 h. The cell viability is determined by the MTT assay. The light absorbance is measured using a microplate reader[1].

References:

[1]. Singh M, et al. Synthesis and biological activity of novel inhibitors of topoisomerase I: 2-aryl-substituted 2-bis-1H-benzimidazoles. Eur J Med Chem. 2011 Feb;46(2):659-69.

Background

DMA trihydrochloride is a fluorescent compound (λ_{ex} =340 nm, λ_{em} =478 nm).

The newly synthesized bisbenzimidazole derivatives DMA (6c) is evaluated for their cytotoxicity against human tumor cell lines, which are cervix carcinoma cell line (HeLa), breast carcinoma cell line (MCF7) and brain glioma cell line (U87) in comparison to Hoechst. In case of MCF7, the IC₅₀ is observed at 5.3 µM for DMA. The IC₅₀ determined in the case of HeLa is 3.4 µM for DMA[1].

[1]. Singh M, et al. Synthesis and biological activity of novel inhibitors of topoisomerase I: 2-aryl-substituted 2-bis-1H-benzimidazoles. Eur J Med Chem. 2011 Feb;46(2):659-69.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA