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产品名称：DMA (trihydrochloride)
产品别名：DMA trihydrochloride

生物活性：

Description	DMA trihydrochloride is a fluorescent compound (λ_{ex}=340 nm, λ_{em}=478 nm).
IC_{50} & Target	IC50: 3.4 μM (HeLa cell), 5.3 μM (MCF7 cell)[1]
In Vitro	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].
Solvent&Solubility	***In Vitro:*** **H_2O : 15.9 mg/mL (27.51 mM;** Need ultrasonic and warming)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7303 mL	8.6516 mL	17.3031 mL
5 mM	0.3461 mL	1.7303 mL	3.4606 mL
10 mM	0.1730 mL	0.8652 mL	1.7303 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80° C, 6 months; -20° C, 1 month (protect from light)。 -80° C 储存时，请在 6 个月内使用，-20° C 储存时，请在 1 个月内使用。

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.

实验参考：

Cell Assay	Various human tumor cells (U87, HeLa and MCF7) are maintained as monolayer at 37°C in 5% CO_2 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.