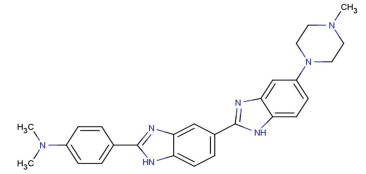


Data Sheet (Cat.No.T19011)

Hoechst 34580

Chemical Properties

CAS No.:	23555-00-2
Formula:	C ₂₇ H ₂₉ N ₇
Molecular Weight:	451.57
Appearance:	Yellow to green powder
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Hoechst 34580, a cell-permeable fluorescent dye, is used for staining DNA and nuclei.
Targets(IC ₅₀)	Amyloid-β: None
In vitro	Hoechst 34580 is a good candidate for treating Alzheimer's disease by inhibiting Aβ formation. 50 μM Aβ42 solutions co-incubated with 100, 25, 12.5, 3.125, 0.78, and 0.1, 0.01 μM Hoechst 34580 at 37 °C for 70 h. Hoechst 34580 can inhibit the aggregation of Aβ42 in a dose-dependent manner. The IC ₅₀ is obtained by measuring the concentration of Hoechst 34580 while maintaining the Aβ42 concentration which gave 0.86±0.05 μM for Hoechst 34580.

Solubility Information

Solubility	DMSO: 47 mg/mL (104.08 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.214 mL	11.072 mL	22.145 mL
5 mM	0.443 mL	2.214 mL	4.429 mL
10 mM	0.221 mL	1.107 mL	2.214 mL
50 mM	0.044 mL	0.221 mL	0.443 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Thai NQ, et al. Discovery of DNA dyes Hoechst 34580 and 33342 as good candidates for inhibiting amyloid beta formation: in silico and in vitro study. J Comput Aided Mol Des. 2016 Aug;30(8):639-50.

Inhibitors · Natural Compounds · Compound Libraries

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