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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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Hoechst 34580 tetrahydrochloride

Cat. No.: HY-15560B

CAS No.: 2310135-08-9

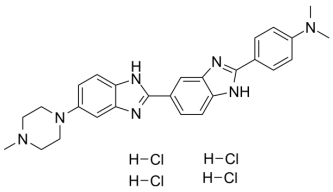
Molecular Formula: $C_{27}H_{33}Cl_4N_7$

Molecular Weight: 597.41

Target: Amyloid-β

Pathway: Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 2.67 mg/mL (4.47 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	1.6739 mL	8.3695 mL	16.7389 mL
5 mM	---	---	---
10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
Solubility: 6.25 mg/mL (10.46 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Hoechst 34580 tetrahydrochloride is a marker dye in Hoechst series. Hoechst is A live nuclear marker dye. Hoechst binds to the grooves in the DNA double strand, which tends to be A/ T-rich DNA strand. Although it binds to all nucleic acids, the A/ T-rich double strand DNA significantly enhances fluorescence intensity Therefore,Hoechst dye can be used for living cell labeling. The fluorescence intensity of Hoechst dye increases with the increase of pH of solution[1].

IC_{50} & Target

Amyloid-β[1]

In Vitro

General Protocol
Preparation of Hoechst working solution
1.1 Preparation of the stock solution
Dissolve 10 mg of in 5 mL DMSO
Note: It is recommended to store the stock solution at 4□ or -20□ away from light and avoid repetitive freeze-thaw cycles.
1.2 Preparation of Hoechst working solution

Dilute the stock solution in serum-free cell culture medium or PBS to obtain final concentration 10 μg/mL Hoechst working solution.
Note: Please adjust the concentration of Hoechst working solution according to the actual situation.
1.Cell staining
2.1 Suspension cells（6-well plate）
a. Centrifuge at 1000 g at 4℃ for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time. The cell density is 1×10^6/mL.
b. Add 1 mL of working solution, and then incubate at room temperature for 3-10 minutes.
c. Centrifuge at 400 g at 4℃ for 3-4 minutes and then discard the supernatant.
d. Wash twice with PBS, 5 minutes each time.
e. Resuspend cells with serum-free cell culture medium or PBS. Observation by fluorescence microscopy or flow cytometry.
2.2 Adherent cells
a. Culture adherent cells on sterile coverslips.
b. Remove the coverslip from the medium and aspirate excess medium.
c. Add 100 μL of working solution, gently shake it to completely cover the cells,and then incubate at room temperature for 3-10 minutes.
d. Wash twice with medium, 5 minutes each time.Observation by fluorescence microscopy or flow cytometry.

Precautions
1. Please adjust the concentration of Hoechst working solution according to the actual situation.
2. This product is for R&D use only, not for drug, household, or other uses.
3. For your safety and health, please wear a lab coat and disposable gloves to operate.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Lipid Res. 2023 Jan 31;100338.
- PLoS One. 2019 Mar 18;14(3):e0213794.

See more customer validations on www.MedChemExpress.com

REFERENCES

[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.

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