Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

DFHBI

Catalog No: tcsc0033115

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1241390-29-3

Formula:
$C_{12}H_{10}F_2N_2O_2$

Pathway:
Others

Target:
Others

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 83.33 mg/mL (330.39 mM)

Observed Molecular Weight:
252.22

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Product Description

DFHBI is a small molecule that resembles the chromophore of green fluorescent protein (GFP). Spinach and DFHBI are essentially nonfluorescent when unbound, whereas the Spinach-DFHBI complex is brightly fluorescent both in vitro and in living cells.

In Vitro: These RNAs interact with DFHBI to produce a bluish-green fluorescence emission (501 nm) after excitation at 447 nm. Spinach and Spinach2 are RNA aptamers that can be used for the genetic encoding of fluorescent RNA. Spinach2 binds and activates the fluorescence of DFHBI, allowing the dynamic localizations of Spinach2-tagged RNAs to be imaged in live cells. The spectral properties of Spinach2 are limited by DFHBI, which produces fluorescence that is bluish-green and is not optimized for filters commonly used in fluorescence microscopes. Spinach and Spinach2 bind to DFHBI have fluorescence excitation maxima of 447 nm and peak fluorescence emission of 501 nm[1]. Broccoli-tagged RNAs are selectively detected in total cellular RNA by gel electrophoresis followed by staining of gels with DFHBI, the Broccoli-binding fluorophore. Spinach is a 98-nt-long RNA aptamer that binds to and switches on the fluorescence of DFHBI. Both Spinach and DFHBI are essentially nonfluorescent when unbound, whereas the Spinach-DFHBI complex is brightly fluorescent both in vitro and in living cells. DFHBI should be shielded from light. All stock solutions of DFHBI should be maintained in dark tubes or wrapped in foil. Plates containing cultures incubated with DFHBI should be kept in the dark by using a foil overwrap[2].
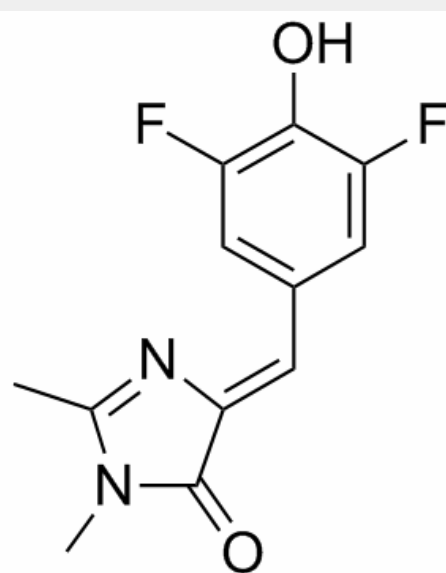
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