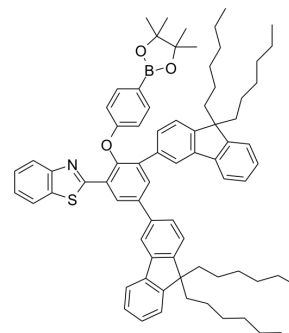


HBT-Fl-BnB

Cat. No.:	HY-D2286
Molecular Formula:	C ₇₅ H ₈₈ BNO ₃ S
Molecular Weight:	1094.38
Target:	Fluorescent Dye
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	HBT-Fl-BnB is a fluorescent probe for the ratiometric detection of ONOO ⁻ in vitro and in vivo. HBT-Fl-BnB consists of an HBT core with Fl groups at the ortho and para positions responding to the zwitterionic excited-state intramolecular proton-transfer (zwitterionic ESIPT) process and a boronic acid pinacol ester with dual roles that block the zwitterionic ESIPT and recognize ONOO ⁻ [1].
In Vitro	<p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).</p> <p>Raw264.7 cells are continued with different concentrations of HBT-Fl-BnB solution (0, 5, 10, 15, 20, 30, 50 μM) in the cell culture incubator. After incubation for 24 h, dual channels for the confocal microscope are used to image the cells treated with HBT-Fl-BnB: the first channel (430ch) λ_{em}=415–515 nm and the second channel (583ch) λ_{ex}=405 nm and λ_{em}=550–650 nm^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).</p> <p>Eight-week-old female C57BL/6 mice were selected. HBT-Fl-BnB (50 μM, 200 μL) is injected through the tail vein at 30 min before imaging. Then, these mice were imaged with the small animal in vivo imaging systems PerkinElmer IVIS Lumina XR and the Fluoroscopic Navigator 360I System. Dual channels for small animal in vivo imaging systems were used to image the mouse treated with HBT-Fl-BnB: the first channel (430ch) λ_{em}=415–515 nm and the second channel (583ch) λ_{ex}=405 nm and λ_{em}=550–650 nm^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Zhenkai Wang A Fluorescent Probe with Zwitterionic ESIPT Feature for Ratiometric Monitoring of Peroxynitrite In Vitro and In Vivo. Anal Chem. 2024 Feb 27;96(8):3600-3608.

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

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