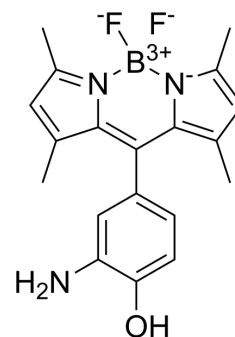


o-Pah

Cat. No.:	HY-D1549
CAS No.:	1181844-41-6
Molecular Formula:	C ₁₉ H ₂₀ BF ₂ N ₃ O
Molecular Weight:	355.19
Target:	Fluorescent Dye
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	o-Pah is a BODIPY derivative with an -NH ₂ and -OH substituted meso-Ph group. o-Pah exhibits metal-induced J-aggregation in the presence of Cu ²⁺ and a specific fluorescence enhancement for Hg ²⁺ (Ex/Em=483/(495-600) nM) ^[1] .
In Vitro	<p>o-Pah (20 μM) shows changed colour upon addition of 100 μM different metal ions and the further addition of 20 μM of Cu²⁺ in DMSO/HEPES buffer solution^[1].</p> <p>Procedures of metal ion sensing Stock solutions of the metal ions (100 mM and 10 mM) were prepared in deionised water^[1].</p> <ol style="list-style-type: none"> 1. A stock solution of o-Pah (0.5 mM) is prepared in DMSO. 2. The solution of o-Pah is then diluted to 5 μM with HEPES buffer solution (50 mM KNO₃, 50 mM HEPES, pH 7.2). 3. During titration experiments, 2 mL solutions of o-Pah (5 μM, 0.5 μM) are placed in a 1 cm quartz optical cell and Cu²⁺, Hg²⁺ stock solutions are added gradually with a micropipette. 4. In selectivity experiments, the test samples are prepared by adding appropriate amounts of the metal ion stock solution into the 2 mL solution of o-Pah (5 μM). 6. During fluorescence measurements, the excitation wavelength is 483 nm and emission spectra are collected between 495-600 nm. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Lu H, et al. Specific Cu(2+)-induced J-aggregation and Hg(2+)-induced fluorescence enhancement based on BODIPY. Chem Commun (Camb). 2010 May 28;46(20):3565-7.

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

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