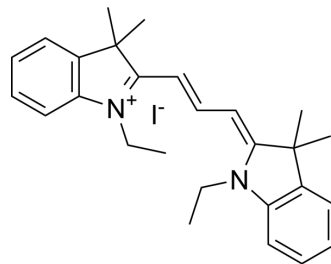


Astrophloxine

Cat. No.:	HY-112636
CAS No.:	14696-39-0
Molecular Formula:	C ₂₇ H ₃₃ IN ₂
Molecular Weight:	512.47
Target:	Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Astrophloxine is a fluorescent imaging probe capable of targeting antiparallel dimers. Astrophloxine can be used to detect aggregated Aβ in brain tissue and cerebrospinal fluid samples of Alzheimer's disease (AD) mice ^[1] .
IC₅₀ & Target	Antiparallel dimer ^[1]
In Vitro	<p>Astrophloxine binds Aβ dimers with stronger fluorescence intensity (A.U.) than binding Aβ monomers^[1].</p> <p>Protocol for CSF analyses^[1]:</p> <ol style="list-style-type: none"> 1. Prepare 1 μL of CSF samples with 1 μL of 10X protease inhibitors and diluted the mixture with 8 μL of binding buffer. Binding buffer (0.1 M sodium phosphate, 0.15 M sodium chloride, 10 mM EDTA; pH 7.2). 2. Dilute Astrophloxine to 0.5 μM with binding buffer. 3. Add individual samples and dye to the wells of a 96-well half-area black microplate with a sample to dye ratio of 1:3. Detect at λ_{ex}=540 nm/λ_{em}=570 nm. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Astrophloxine shows more fluorescence (A.U.) in APP/PS1 mice CSF rather in WT mice, and is able to indicate soluble Aβ oligomers in CSF and insoluble plaques in brain tissue^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Lee JC, et al. Discovery of Chemicals to Either Clear or Indicate Amyloid Aggregates by Targeting Memory-Impairing Anti-Parallel Aβ Dimers. *Angew Chem Int Ed Engl.* 2020 Jul 6;59(28):11491-11500.

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

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