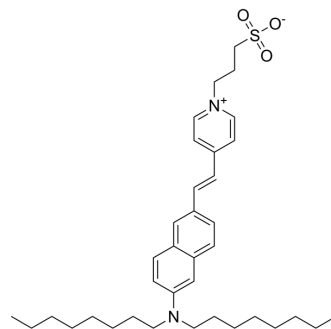


Di-8-ANEPPS

Cat. No.:	HY-101891
CAS No.:	157134-53-7
Molecular Formula:	C ₃₆ H ₅₂ N ₂ O ₃ S
Molecular Weight:	592.87
Target:	Fluorescent Dye
Pathway:	Others
Storage:	-20°C, protect from light * The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 1 mg/mL (1.69 mM; ultrasonic and warming and heat to 60°C)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.6867 mL	8.4336 mL	16.8671 mL
	5 mM	---	---	---
	10 mM	---	---	---
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Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Di-8-ANEPPS is a naphthylstyryl voltage-sensitive dye, shifting both their fluorescence excitation and emission spectra upon changes in V_m .

In Vitro

A mouse cell staining with Di-8-ANEPPS is applied voltage clamp pulses and immersed in Na⁺-containing solution. The Di-8-ANEPPS signal, which largely reflects t system voltage, has an asymmetrical positive component upon application of depolarizing pulses. This is interpreted as reflecting a propagating action potential, escaping from the voltage-clamped plasma membrane. Its temporal properties are not unlike those of the “center” signal. Notably, the peak of the signal occurs 0.3 ms after the leading edge of the depolarizing pulse^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]

To implement the technique, cells enzymatically isolated from mouse flexor digitorum brevis (FDB) muscle are stained by brief exposure to a saline with Di-8-ANEPPS and then washed in solution^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Manno C, et al. Confocal imaging of transmembrane voltage by SEER of di-8-ANEPPS. J Gen Physiol. 2013 Mar;141(3):371-87.

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

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