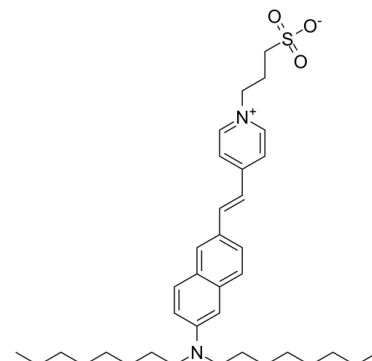


Data Sheet

Product Name:	Di-8-ANEPPS
Cat. No.:	CS-7775
CAS No.:	157134-53-7
Molecular Formula:	C ₃₆ H ₅₂ N ₂ O ₃ S
Molecular Weight:	592.87
Target:	Others
Pathway:	Others
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

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 the 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].

PROTOCOL (Extracted from published papers and Only for reference)

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].

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.

CAIndexNames:

Pyridinium, 4-[2-[6-(dioctylamino)-2-naphthalenyl]ethenyl]-1-(3-sulfopropyl)-, inner salt

SMILES:

O=S([O-])C1=CC=C(C=C1)/C=C/C2=CC=CC=C2C(N(CCCCCCCC)CCCCCCC)C=CC3=C2C=C1

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

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