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Di-4-ANEPPS

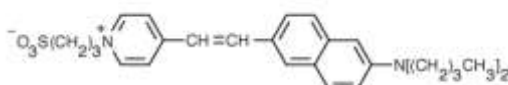
Catalog Number	Packaging Size
C265	5 mg

Storage upon receipt: -20°C, protected from light

Introduction

Di-4-ANEPPS is a fast-response probe that used to measure membrane potential changes. ANEP dyes are molecules that fluoresce in response to electrical potential changes in their environment. The fast-response probes are operated by means of a change in their electronic structure, and consequently their fluorescence properties, in response to a change in the surrounding electric field. Their optical response is sufficiently fast to detect transient (millisecond) potential changes in excitable cells, including single neurons, cardiac cells, and intact brains. However, the magnitude of their potential-dependent fluorescence change is often small; fast-response probes typically show a 2-10% fluorescence change per 100 mV. Furthermore, these dyes display a potential-dependent shift in their excitation spectra, thus permitting the quantitation of membrane potential using excitation ratio measurements.

Specifications

Label:	Di-4-ANEPPS	
Ex/Em:	482/686 nm	
Detection Method:	Fluorescent	
Solubility:	DMSO, DMF	
Molecular Formula	C ₂₈ H ₃₆ N ₂ O ₃ S	
Molecular Weight:	480.66	
CAS Number:	90134-00-2	
Storage Conditions:	-20°C, protected from light	
Shipping Condition:	Room Temperature	

Applications

Membrane potential indicator

References:

Monitoring biophysical properties of lipid membranes by environment-sensitive fluorescent probes.
Demchenko AP, Mély Y, Duportail G, Klymchenko AS,
Biophys J (2009) 96:3461-3470
External Electric Field-Induced Transmembrane Potentials in Biological Systems: Features, Effects, and Optical Monitoring.
Farkas DL
Electroporation and Electrofusion in Cell Biology, Neumann E, Ed. 1989; (na):na pp. 409-431