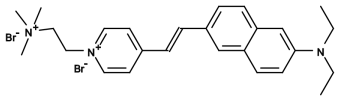
Di-2-ANEPEQ [JPW 1114]

Catalog number: 21496
Unit size: 5 mg

Product Details

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	549.38
Soluble In	Water
Chemical Structure	

Spectral Properties

Excitation Wavelength	488 nm
Emission Wavelength	701 nm

Applications

Di-2-ANEPEQ is used for monitoring fast membrane potential changes. ANEP dyes belong to the class of the fast-response membrane potential dyes. Their optical response is fast enough to detect transient membrane potential changes in excitable cells where they demonstrate a membrane potential-dependent shift in excitation spectra. This feature allows the measurement of membrane potential changes by excitation ratio. These dyes are weakly fluorescent in aqueous media, and become strongly fluorescent upon binding to lipophilic environments (such as membranes). In general, fast-response probes operate 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.