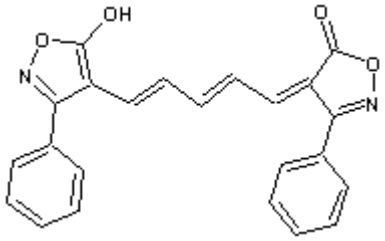
FT-352022

Oxonol V

Sensitive slow-response membrane potential probe

Product Description

Name :	**Oxonol V**	
	Bis-(3-phenyl-5-oxoisoxazol-4-yl)pentamethine oxonol	
Catalog Number :	FP-352021	25 mg
	FP-352023	50 mg
	FP-352022	100 mg
Molecular Weight :	MW= 384.39	
	$C_{23}H_{16}N_2O_4$	
Solubility:	DMSO, EtOH	
Fluorescence:	$\lambda_{exc}\backslash\lambda_{em}$ (MeOH) = 610/639 nm	



Storage: Room temperature. Protect from light and moisture

Introduction

Oxonol V is a sensitive slow-response membrane potential probe that is widely used for measuring membrane potentials of many biological systems. The fluorescence of Oxonol V decreases upon membrane hyperpolarization. In general, slow-response probes exhibit potential-dependent changes in their transmembrane distribution that are accompanied by a fluorescence change. The magnitude of their optical responses is much larger than that of fast-response probes (typically a 1% fluorescence change per mV). Slow-response probes, which include cationic carbocyanines, rhodamines and anionic oxonols, are suitable for detecting changes in average membrane potentials of nonexcitable cells caused by respiratory activity, ion-channel permeability, drug binding and other factors.

Directions for use

Directions for Use

- Prepare a stock solution at 0.7 mM in ethanol and store at 4°C
- Dilute freshly to a final concentration of 3 µM before each experiment
- Incubate coverslips containing wounded monolayers for 30 min at room temperature in the appropriate solution containing 3 µM Oxonol V.
- Mount the coverslips and placed under a fluorescence microscope.

Other protocol may be found in the litterature.

References

- **Chifflet S**. *et al.,* A possible role for membrane depolarization in epithelial wound healing, *Am J Physiol Cell Physiol* 288: C1420-C1430 (2005) Article
- **Das T.** *et al*., Mechanism of response of potential-sensitive dyes studied by time-resolved fluorescence, *Biophys. J*., 64: 1122 - 1132 (1993) Article
- **Freedman J.** *et al*., Quantitative analysis of oxonol V fluorescence in submitochondrial particles, *Ann. N.Y. Acad. Sci.*, 671: 493 (1992)

FT-352022

- **Morimoto T.** *et al*., Voltage-Sensitive Oxonol Dyes Are Novel Large-Conductance Ca2+-Activated K+ Channel Activators Selective for beta1 and beta4 but Not for beta2 Subunits, *Mol. Pharmacol*., 71: 1075 - 1088 (2007) Article
- **Moriyama Y**. *et al*., One-step Purification of *Escherichia coli* H+-ATPase (F0F1) and Its Reconstitution into Liposomes with Neurotransmitter Transporters, *J. Biol. Chem*., 266, 33: 22141-22146 (1991) Article

Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- $DiBAC_4(3)$, FP-46600A
- $DiBAC_4(5)$, FP-465992
- $DiSBAC_2(3)$, FP-46603A
- $DiSBAC_2(5)$, FP-HH6390
- $DiOC_2(5)$, FP-BZ9350
- Oxonol VI, FP393141
- Acridine orange, FP-21092A
- Propidium iodide, FP-36774A

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/
Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06