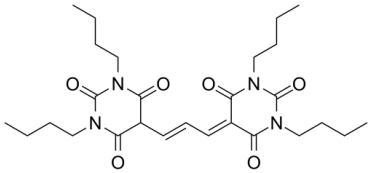
Data Sheet

Product Name:	DiBAC4(3)
Cat. No.:	CS-7987
CAS No.:	70363-83-6
Molecular Formula:	C27H40N4O6
Molecular Weight:	516.63
Target:	Others
Pathway:	Others
Solubility:	DMSO : ≥ 60 mg/mL (116.14 mM)



BIOLOGICAL ACTIVITY:

DiBAC4(3) is a voltage-sensitive fluorescent dye (λ_{ex}=490 nm, λ_{em}=505 nm). **In Vitro:** The membrane hyperpolarization induced by 10 μM Evans blue (EB) in HEKBKα is clearly observed with DiBAC4(3), while the change in membrane potential (MP) by addition of 3 mM tetraethylammonium chloride (TEA) appears more slowly than that measured with microelectrode. The time to peak of hyperpolarization is 2.3±0.9 s (n=4) and 35.0±2.6 s (n=12, P<0.01) by the measurements with microelectrodes and DiBAC4(3), respectively[1].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: [1]Prior to the fluorescence measurements, cells are incubated in KRH (Krebs-Ringer-HEPES) buffer containing with 100 nM DiBAC4(3) for 20 min at room temperature. The stained cells are used for experiments without washing. The fluorescence emission is collected using a 505 nm dicroic mirror and a BA filter (>520 nm)[1].

References:

[1]. Yamada A, et al. Usefulness and limitation of DiBAC4(3), a voltage-sensitive fluorescent dye, for the measurement of membrane potentials regulated by recombinant large conductance Ca2+-activated K+ channels in HEK293 cells. Jpn J Pharmacol. 2001 Jul;86(3):342-50.

CAIndexNames:

2,4,6(1H,3H,5H)-Pyrimidinetrione, 1,3-dibutyl-5-[3-(1,3-dibutylhexahydro-2,4,6-trioxo-5-pyrimidinyl)-2-propen-1-ylidene]-

SMILES:

O=C1N(CCCC)C(/C(C(N1CCCC)=O)=C/C=C/C(C(N2CCCC)=O)C(N(CCCC)C2=O)=O)=O

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

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