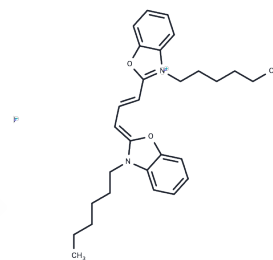


## 3,3'-Dihexyloxycarbocyanine iodide

## Chemical Properties

CAS No. :	53213-82-4
Formula:	C <sub>29</sub> H <sub>37</sub> IN <sub>2</sub> O <sub>2</sub>
Molecular Weight:	572.52
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	3,3'-Dihexyloxycarbocyanine iodide (DiOC <sub>6</sub> (3)) is a carbocyanine dye used to monitor changes in mitochondrial membrane potential.
Targets(IC <sub>50</sub> )	Others
In vitro	The addition of cells to the cuvette containing 0.25 μM 3,3'-Dihexyloxycarbocyanine iodide (DiOC <sub>6</sub> (3)) leads to an increase in fluorescence, equilibration is rapid and is complete by 4 min. When f-met-leu-phe (10 <sup>-7</sup> M) is added to neutrophils pre-equilibrated with DiOC <sub>6</sub> (3), there is a short lag period of 5 seconds. The lag period is followed by a rapid loss of fluorescence. Examination of DiOC <sub>6</sub> (3) loaded neutrophils using fluorescence microscopy demonstrates that in resting neutrophils the brightest fluorescence is associated with long thin organelles that correspond to the distribution of mitochondria.

## Solubility Information

Solubility	DMSO: 62.5 mg/mL (109.17 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 2.5 mg/mL (4.37 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.7467 mL	8.7333 mL	17.4666 mL
5 mM	0.3493 mL	1.7467 mL	3.4933 mL
10 mM	0.1747 mL	0.8733 mL	1.7467 mL
50 mM	0.0349 mL	0.1747 mL	0.3493 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Korchak HM, et al. A carbocyanine dye, DiOC6(3), acts as a mitochondrial probe in human neutrophils. *Biochem Biophys Res Commun.* 1982 Oct 29;108(4):1495-501.

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