Data Sheet (Cat.No.T15593)



IQ-R

Chemical Propert	ies	
CAS No. :	1345445-57-9	H ₅ C N CH ₅
Formula:	C34H28N2O7	
Molecular Weight:	576.6	
Appearance: 🦲	no data available	
Storage:	keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year	

Biological Description

Description	IQ-R is a novel hypoxia-sensitive fluorescent probe that consists of an indolequinone unit coupled with a rhodol fluorophore.	
Targets(IC50)	Others	
In vitro	IQ-R is activated and reduced by endogenous reductase preferentially under hypoxic conditions when administered to A549 cells, thereby visualizing hypoxic cancer cells by robust fluorescence. While the fluorescence of rhodol in the IQ-R conjugate is quenched by the function of the intramolecular indolequinone unit, it is restored under hypoxic conditions through the enzymatic one-electron reduction of IQ-R by NADPH: cytochrome P450 reductase to release the nonconjugated free rhodol. IQ-R has good solubility in water and longer wavelength for absorption and emission, which are favorable for cellular bioimaging.	

Preparing Stock Solutions

30	1mg	5mg	10mg
1 mM	1.7343 mL	8.6715 mL	17.343 mL
5 mM	0.3469 mL	1.7343 mL	3.4686 mL
10 mM	0.1734 mL	0.8672 mL	1.7343 mL
50 mM	0.0347 mL	0.1734 mL	0.3469 mL

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.

Reference

Hirokazu Komatsu, et al. Indolequinone-rhodol conjugate as a fluorescent probe for hypoxic cells: enzymatic activation and fluorescence properties. Med. Chem. Commun., 2010, 1, 50-53

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