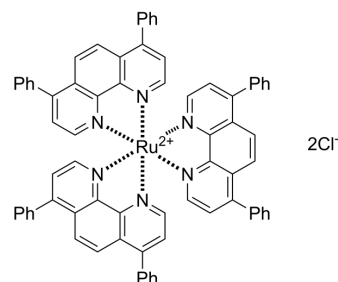


Tris(4,7-diphenyl-1,10-phenanthroline)ruthenium(II) dichloride

Cat. No.:	HY-W074143
CAS No.:	36309-88-3
Molecular Formula:	C ₇₂ H ₄₈ Cl ₂ N ₆ Ru
Molecular Weight:	1169.17
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (21.38 mM; Need ultrasonic)
Ethanol : 8.33 mg/mL (7.12 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	0.8553 mL	4.2765 mL	8.5531 mL
	5 mM	0.1711 mL	0.8553 mL	1.7106 mL
	10 mM	0.0855 mL	0.4277 mL	0.8553 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 1.25 mg/mL (1.07 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 0.83 mg/mL (0.71 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 0.83 mg/mL (0.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tris(4,7-diphenyl-1,10-phenanthroline)ruthenium(II) dichloride is an oxygen-sensitive fluorescent indicator widely used as a probe for luminescence detection and quantitative oxygen determination^[1].

REFERENCES

[1]. Hao Xu, et al. A real-time ratiometric method for the determination of molecular oxygen inside living cells using sol-gel-based spherical optical nanosensors with applications to rat C6 glioma. Anal Chem. 2001 Sep 1;73(17):4124-33.

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

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