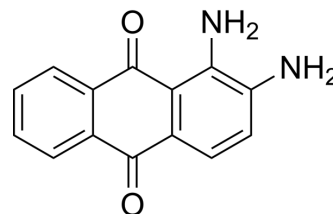


1,2-Diaminoanthraquinone

Cat. No.:	HY-W013435
CAS No.:	1758-68-5
Molecular Formula:	C ₁₄ H ₁₀ N ₂ O ₂
Molecular Weight:	238.25
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 : 62.5 mg/mL (262.33 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.1973 mL	20.9864 mL	41.9727 mL
	5 mM	0.8395 mL	4.1973 mL	8.3945 mL
	10 mM	0.4197 mL	2.0986 mL	4.1973 mL

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

BIOLOGICAL ACTIVITY

Description

1,2-Diaminoanthraquinone is a sensitivity, specificity and nontoxic nitric oxide (NO) fluorescent probe. 1,2-Diaminoanthraquinone can be used to detect NO productions in live cell and animals with a maximum of absorption at about 540 nm and a detection limit of 5 μM for NO^{[1][2]}.

In Vitro

1,2-Diaminoanthraquinone and the product formed upon its reaction with NO, DAA-TZ, can be spectrally resolved using fluorescence spectroscopy and confocal microscopy^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Immunofluorescence^[1]

Cell Line:	Raw 264.7 macrophage cells
Concentration:	27.4 μM
Incubation Time:	20 min
Result:	Reacted with NO in the presence of oxygen in the intracellular environment to yield DAA-TZ.

REFERENCES

- [1]. María J Marín, et al. Fluorescence of 1,2-diaminoanthraquinone and its nitric oxide reaction product within macrophage cells. *Chembiochem*. 2011 Nov 4;12(16):2471-7.
- [2]. Francisco Galindo, et al. Spectroscopic studies of 1,2-diaminoanthraquinone (DAQ) as a fluorescent probe for the imaging of nitric oxide in living cells. *Photochem Photobiol Sci*. 2008 Jan;7(1):126-30.
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Caution: Product has not been fully validated for medical applications. For research use only.

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