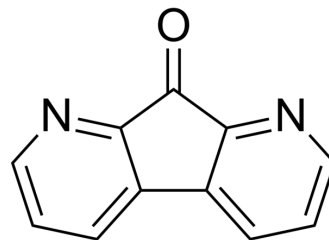


## 1,8-Diazafluoren-9-one

Cat. No.:	HY-D0903
CAS No.:	54078-29-4
Molecular Formula:	C <sub>11</sub> H <sub>6</sub> N <sub>2</sub> O
Molecular Weight:	182.18
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (137.23 mM; Need ultrasonic)						
	H <sub>2</sub> O : < 0.1 mg/mL (insoluble)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	5.4891 mL	27.4454 mL	54.8908 mL
				5 mM	1.0978 mL	5.4891 mL	10.9782 mL
10 mM				0.5489 mL	2.7445 mL	5.4891 mL	
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (13.72 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (13.72 mM); Clear solution						
	3. Add each solvent one by one: PBS Solubility: 2 mg/mL (10.98 mM); Clear solution; Need ultrasonic and warming and heat to 60°C						

### BIOLOGICAL ACTIVITY

Description	1,8-Diazafluoren-9-one (DFO) is a chemical that is used to find fingerprints on porous surfaces.
In Vitro	1,2-indanedione (1,2-IND) and 1,8-diazafluoren-9-one (DFO) are used in the forensic field to enhance latent fingerprints deposited on porous surfaces due to the formation of fluorescent products by reacting with the amino acids present in the papillary exudate. DFO has been the most used because of its excellent enhancing properties, even if it is more expensive and relatively toxic in comparison with the 1,2-IND <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Acta Pharm Sin B. 2022.
- J Agric Food Chem. 2022 May 25;70(20):6213-6223.
- FASEB J. 2023 Jun;37(6):e22992.
- Biochem Biophys Res Commun. 2022 May 21;605:111-118.

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## REFERENCES

[1]. D'Elia V, et al. Evaluation and comparison of 1,2-indanedione and 1,8-diazafluoren-9-one solutions for the enhancement of latent fingerprints on porous surfaces. Forensic Sci Int. 2015 Sep;254:205-14.

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

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