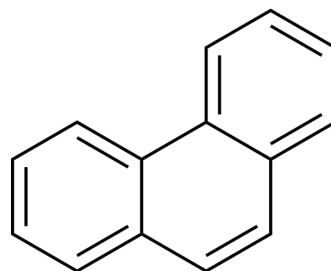


## Phenanthrene

Cat. No.:	HY-B1727		
CAS No.:	85-01-8		
Molecular Formula:	C <sub>14</sub> H <sub>10</sub>		
Molecular Weight:	178.23		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (1402.68 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	5.6107 mL	28.0536 mL	56.1073 mL
		5 mM	1.1221 mL	5.6107 mL	11.2215 mL
		10 mM	0.5611 mL	2.8054 mL	5.6107 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: ≥ 2.08 mg/mL (11.67 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (11.67 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	Phenanthrene is a polycyclic aromatic hydrocarbon (PAH) and has been frequently used as an indicator for monitoring PAH contaminated matrices <sup>[1]</sup> . Phenanthrene induces oxidative stress and inflammation <sup>[2]</sup> .
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### CUSTOMER VALIDATION

- Molecules. 2022 May 13;27(10):3133.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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## REFERENCES

[1]. Sun K, et al. Subcellular distribution and biotransformation of phenanthrene in pakchoi after inoculation with endophytic *Pseudomonas* sp. as probed using HRMS coupled with isotope-labeling. *Environ Pollut.* 2018 Jun;237:858-867.

[2]. Dupuy J, et al. Effect and localization of phenanthrene in maize roots. *Chemosphere.* 2016 Apr;149:130-6.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA