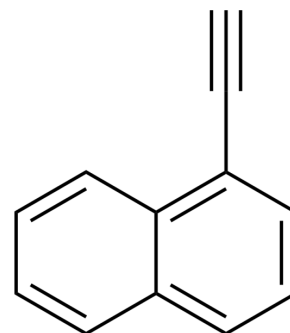


## 1-Ethynyl-naphthalene

<b>Cat. No.:</b>	HY-111430	
<b>CAS No.:</b>	15727-65-8	
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>8</sub>	
<b>Molecular Weight:</b>	152.19	
<b>Target:</b>	Cytochrome P450	
<b>Pathway:</b>	Metabolic Enzyme/Protease	
<b>Storage:</b>	Pure form	-20°C 3 years 4°C 2 years
	In solvent	-80°C 6 months -20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 125 mg/mL (821.34 mM)

\* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	6.5707 mL	32.8537 mL	65.7073 mL
	5 mM	1.3141 mL	6.5707 mL	13.1415 mL
	10 mM	0.6571 mL	3.2854 mL	6.5707 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (13.67 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (13.67 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (13.67 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

1-Ethynyl-naphthalene is a selective inhibitor of cytochrome P450 1B1. 1-Ethynyl-naphthalene is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.

#### IC<sub>50</sub> & Target

P450 1B1<sup>[1]</sup>

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**In Vitro**

1-Ethynynaphthalene, selective inhibitor of cytochrome P450 1B1, does not affect 2-hydroxylation but inhibits 4-hydroxylation by 38%. At higher concentrations, 1-Ethynynaphthalene inhibits 2-hydroxylation of 2-Hydroxylation of estradiol (E<sub>2</sub>) by ~30% and 4-hydroxylation of E<sub>2</sub> by up to 80%<sup>[1]</sup>.

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

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**REFERENCES**

[1]. Liehr JG, et al. 4-Hydroxylation of estradiol by human uterine myometrium and myoma microsomes: implications for the mechanism of uterine tumorigenesis. Proc Natl Acad Sci U S A. 1995 Sep 26;92(20):9220-4.

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

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