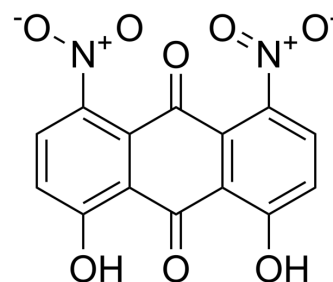


## 1,8-Dihydroxy-4,5-dinitroanthraquinone

<b>Cat. No.:</b>	HY-121138		
<b>CAS No.:</b>	81-55-0		
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>6</sub> N <sub>2</sub> O <sub>8</sub>		
<b>Molecular Weight:</b>	330.21		
<b>Target:</b>	Virus Protease; Flavivirus; Dengue virus		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 41.67 mg/mL (126.19 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.0284 mL	15.1419 mL	30.2838 mL
	5 mM	0.6057 mL	3.0284 mL	6.0568 mL
	10 mM	0.3028 mL	1.5142 mL	3.0284 mL

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

### BIOLOGICAL ACTIVITY

#### Description

1,8-Dihydroxy-4,5-dinitroanthraquinone (ARDP0006; DHDNE) is a potent inhibitor of serine proteinase NS2B/3, the dengue viral protein. 1,8-Dihydroxy-4,5-dinitroanthraquinone has intermolecular proteinase activity and viral inhibition ability with IC<sub>50</sub>s of 432 μM and 4.2 μM, respectively. Meanwhile 1,8-Dihydroxy-4,5-dinitroanthraquinone inhibits NS2B/3 cleavage in BHK-21 cells at a dose ranging from 4.2 μM to 432 μM<sup>[1]</sup>.

#### In Vitro

1,8-Dihydroxy-4,5-dinitroanthraquinone (25 μM; 12-48 h) inhibits extracellular and intracellular dengue virus growth in BHK-21 cells<sup>[1]</sup>.

1,8-Dihydroxy-4,5-dinitroanthraquinone (50 μM-2 mM; 90 min) inhibits NS2B/3 cleavage, and significantly and dramatically acts function at 100 μM in BHK-21 cells<sup>[1]</sup>.

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

### REFERENCES

[1]. Constant DA, et al. Targeting intramolecular proteinase NS2B/3 cleavages for trans-dominant inhibition of dengue virus. Proc Natl Acad Sci U S A. 2018 Oct

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

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