

## ADHP

## Chemical Properties

CAS No. : 119171-73-2

Formula: C<sub>14</sub>H<sub>11</sub>NO<sub>4</sub>

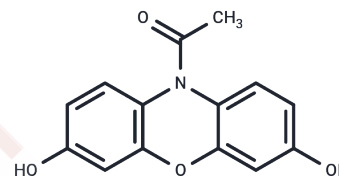
Molecular Weight: 257.24

Storage:

Store at low temperature, Store under nitrogen, Keep away from direct sunlight

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	ADHP (10-Acetyl-3,7-dihydroxyphenoxazine) is a fluorogenic peroxidase substrate ( $\lambda_{\text{ex}}=530 \text{ nm}$ , $\lambda_{\text{em}}=590 \text{ nm}$ ).
Targets(IC50)	Others
In vitro	To obtain the parameters $K_m$ and $k_{\text{cat}}$ for Compound I, two independent methods are used. Initially, the oxidation of ADHP using the injector functionality built-in to the fluorescence plate reader is studied. The auto-injector dispenses the H <sub>2</sub> O <sub>2</sub> to initiate the reaction, as a means of generating a set of progress curves. Analysis for MPO-mediated oxidation of ADHP gives a $K_m$ of $31 \pm 4 \mu\text{M}$ and the $k_{\text{cat}}$ of $186 \pm 6/\text{s}$ . The $k_{\text{obs}}$ also increase over the experimental range of ADHP concentrations from 1 to 80 $\mu\text{M}$ and for the converse experiment holding substrate constant over 3 to 45 nM MPO. The apparent second-order rate constant obtain from the slope of $k_{\text{obs}}$ against ADHP concentration $K_{\text{appon}}$ is $2.1 \pm 0.2 \text{ mM/s}$ .

## Solubility Information

Solubility	DMSO: 60 mg/mL (233.25 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.8874 mL	19.4371 mL	38.8742 mL
5 mM	0.7775 mL	3.8874 mL	7.7748 mL
10 mM	0.3887 mL	1.9437 mL	3.8874 mL
50 mM	0.0777 mL	0.3887 mL	0.7775 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Jiansheng Huang, et al. Ordered Cleavage of Myeloperoxidase Ester Bonds Releases Active site Heme Leading to Inactivation of Myeloperoxidase by Benzoic Acid Hydrazide Analogs. Arch Biochem Biophys. 2014 Apr 15; 548: 74-85.

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