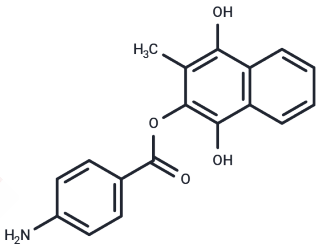
# Data Sheet (Cat.No.T14219)

TargetMol

## Aminaftone

### Chemical Properties



CAS No. : 14748-94-8

Formula: C18H15NO4

Molecular Weight: 309.32

Storage: Store at low temperature,Keep away from direct sunlight,The compound is unstable in solution. Please use soon
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Aminaftone, a derivative of 4-aminobenzoic acid, inhibits endothelin-1 (ET-1) production and is used to study hypertension and systemic sclerosis. |
| Targets(IC50) | Endothelin Receptor |
| In vitro | In cell cultures, Aminaftone inhibits the production of Endothelin-1 (ET-1) by interfering with the transcription of the pre-pro-endothelin-1 (PPET-1) gene. Concentrations of ET-1 and PPET-1 relative gene expression increase upon incubation with IL-1beta. Aminaftone, when incubated in a concentration-dependent manner, significantly reduces the production of ET-1. A strong direct correlation is observed between ET-1 concentrations and PPET-1 relative gene expression. It is noteworthy that Aminaftone does not influence the activity of endothelin-converting enzyme (ECE)[2]. |
| In vivo | After 5 weeks, rats are randomly assigned to the following experimental groups: Control; Monocrotaline; Aminaftone 30 mg/kg/day; Aminaftone 150 mg/kg/day. In animals treated with Aminaftone at both doses, mortality is significantly lower compared to those treated with Monocrotaline alone. Aminaftone, especially at the highest dose, reduces the plasma concentration of ET-1 and appears to decrease right heart hypertrophy and the wall thickness of the pulmonary arteries. At the end of the experiment, no rats die in the control and Aminaftone 150 groups, while mortality is 38% in the Monocrotaline group and 13% in the Aminaftone 30 group. Overall, rats treated with Aminaftone show a significantly lower mortality compared to rats in the Monocrotaline group (P=0.044)[1]. |

### Solubility Information

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|---|---|
| Solubility | DMSO: 60 mg/mL (193.97 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.2329 mL | 16.1645 mL | 32.329 mL |
| 5 mM | 0.6466 mL | 3.2329 mL | 6.4658 mL |
| 10 mM | 0.3233 mL | 1.6164 mL | 3.2329 mL |
| 50 mM | 0.0647 mL | 0.3233 mL | 0.6466 mL |

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

Zambelli V, et al. Efficacy of aminaftone in a rat model of monocrotaline-induced pulmonary hypertension. Eur J Pharmacol. 2011 Sep 30;667(1-3):287-91.
Scorza R, et al. Aminaftone, a derivative of 4-aminobenzoic acid, downregulates endothelin-1 production in ECV304 Cells: an in vitro Study. Drugs R D. 2008;9(4):251-7.