

# ML171

Catalog No: tcsc0012526



## Available Sizes

**Size:** 100mg

**Size:** 500mg



## Specifications

**CAS No:**

6631-94-3

**Formula:**

$C_{14}H_{11}NOS$

**Pathway:**

Others

**Target:**

Others

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 64$  mg/mL (265.22 mM)

**Alternative Names:**

2-Acetylphenothiazine;2-APT

**Observed Molecular Weight:**

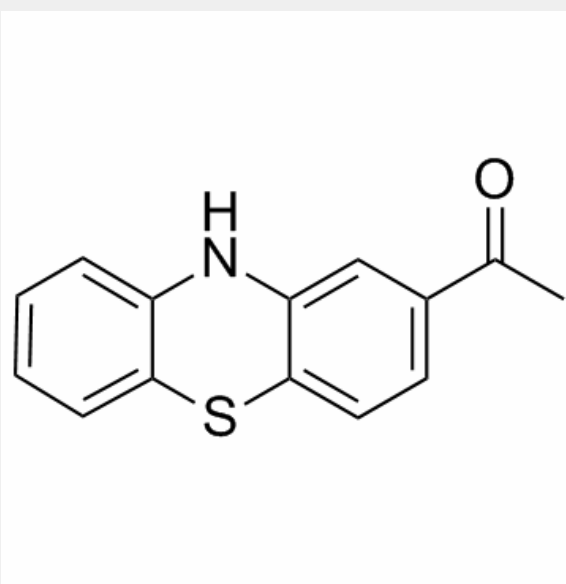
241.31

## Product Description

ML171 (2-Acetylphenothiazine;2-APT) is a potent and selective **Nox1** inhibitor that blocks Nox1-dependent ROS generation, with an **IC<sub>50</sub>** of 0.25  $\mu$ M in HEK293-Nox1 confirmatory assay.

IC50 & Target: IC50: 0.25  $\mu$ M (HEK293-Nox1), 0.129  $\mu$ M (HT29)<sup>[1]</sup>

***In Vitro:*** Nox1-dependent ROS generation has been shown to play a pivotal role in cell signaling, cell growth, angiogenesis, motility and blood pressure regulation. ML171 strongly blocks ROS generation in HT29 cells ( $IC_{50}=0.129 \mu M$ ) and only increasing over-expression of Nox1 can overcome the blockage of ROS generation caused by ML171 treatment in HEK293 cell system reconstituted with all the components required Nox1-dependent ROS generation. ML171 efficiently blocks ROS production measured by carboxy-H2-DCFDA staining as well as DPI used as a positive control. When ML171 is tested in HEK293-Nox1 reconstituted cell system, higher potency in blocking Nox1-dependent ROS generation is observed compared with the parental compound<sup>[1]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!