

# Pevonedistat hydrochloride

Catalog No: tcsc0068



## Available Sizes

**Size:** 1mg

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg



## Specifications

**CAS No:**

1160295-21-5

**Formula:**

$C_{21}H_{26}ClN_5O_4S$

**Pathway:**

Metabolic Enzyme/Protease

**Target:**

NEDD8-activating Enzyme

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 160$  mg/mL (333.35 mM)

**Alternative Names:**

MLN4924 (hydrochloride)

**Observed Molecular Weight:**  
479.98

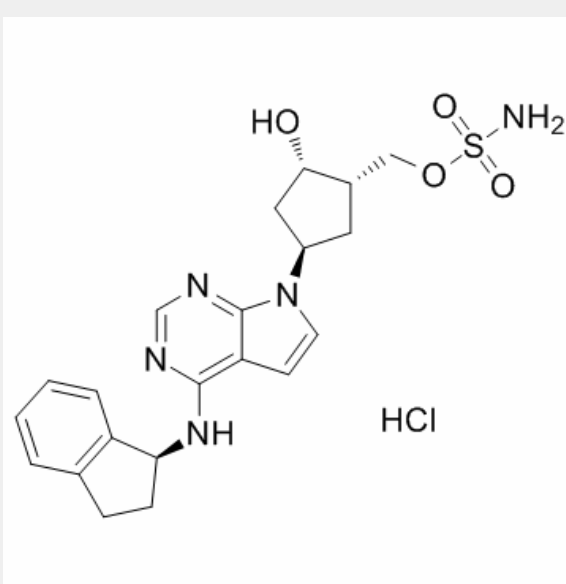
## Product Description

Pevonedistat hydrochloride (MLN4924 hydrochloride) is a potent and selective NEDD8-activating enzyme (**NAE**) inhibitor, with an **IC<sub>50</sub>** of 4.7 nM.

IC50 & Target: IC50: 4.7 nM (NAE)

**In Vitro:** Pevonedistat (MLN4924) is a potent inhibitor of NAE (half-maximal inhibitory concentration ( $IC_{50}$ )=0.004  $\mu$ M), and is selective relative to the closely related enzymes UAE, SAE, UBA6 and ATG7 ( $IC_{50}$ =1.5, 8.2, 1.8 and >10  $\mu$ M, respectively). Pevonedistat (MLN4924) treatment inhibits overall protein turnover in cultured HCT-116 cells. Treatment of HCT-116 cells with Pevonedistat (MLN4924) for 24 h results in a dose-dependent decrease of Ubc12-NEDD8 thioester and NEDD8-cullin conjugates, with an  $IC_{50}$ [1]. Pevonedistat induces CLL cell apoptosis and circumvented stroma-mediated resistance. Pevonedistat promotes induction of Bim and Noxa in the CLL cells leading to rebalancing of Bcl-2 family members toward the proapoptotic BH3-only proteins[2]. Pevonedistat (MLN4924) rapidly inhibits cullin 1 neddylation and remarkably suppressed growth and survival as well as migration in a dose-and time-dependent manner in gastric cancer cells, and significantly suppresses migration by transcriptionally activating E-cadherin and repressing MMP-9[3].

**In Vivo:** Pevonedistat (MLN4924, 30 or 60 mg/kg, s.c.) leads to a dose- and time-dependent increase in the steady state levels of NRF2 and CDT1 in HCT-116 tumour-bearing mice, and decreases NEDD8-cullin levels in normal mouse tissue as illustrated in mouse bone marrow cells. Pevonedistat (MLN4924) administered on a BID schedule at 30 and 60 mg/kg inhibits tumour growth with T/C values of 0.36 and 0.15, respectively[1].



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