

Store at -20°C  #85923	MLN4924 (Pevonedistat)	
	1 mg	
	<b>Orders:</b> 877-616-CELL (2355) orders@cellsignal.com	
	<b>Support:</b> 877-678-TECH (8324)  <b>Web:</b> info@cellsignal.com cellsignal.com	
3 Trask Lane   Danvers   Massachusetts   01923   USA		

**For Research Use Only. Not for Use in Diagnostic Procedures.**

## Background

MLN4924 (Pevonedistat) is a potent and selective inhibitor of NEDD8-activating enzyme (NAE) (1). The NAE is part of the NEDD8 conjugation pathway that involves the ubiquitin-like NEDD8 protein and cullin-RING ligases (CRL). The NAE is responsible for the covalent attachment of NEDD8 to cullin proteins, termed neddylation, resulting in a conformational change within the CRL, analogous to ubiquitination. This is a reversible, multi-step process responsible for cell cycle progression and survival pathways in cancer cells (2). The inhibition of NAE by MLN4924 (Pevonedistat) induces apoptosis in human tumor cells and reduces human tumor xenograft growth in mice ( $IC_{50} = 4.7$  nM) (1-3).

## Molecular Formula

$C_{21}H_{25}N_5O_4S$

## Molecular Weight

443.2 g/mol

## Purity

>98%

## CAS

905579-51-3

## Solubility

Soluble in DMSO at 10 mg/ml.

## Storage

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

## Directions for Use

MLN4924 (Pevonedistat) is supplied as a lyophilized powder. For a 5 mM stock, reconstitute 1 mg of powder in 451.2  $\mu$ l of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

## Background References

1. Soucy, T.A. et al. (2009) *Nature* 458, 732-6.
2. Soucy, T.A. et al. (2010) *Genes Cancer* 1, 708-16.
3. Wang, M. et al. (2011) *Expert Opin Ther Targets* 15, 253-64.

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