

Store at
-20°C

MLN4924 (Pevonedistat)

Cell Signaling
TECHNOLOGY®

#85923

1 mg

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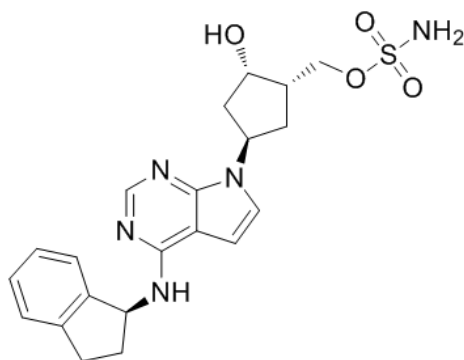
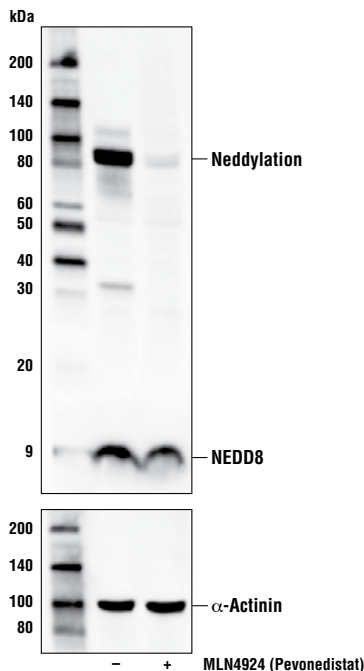
New 10/19

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).

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.

Molecular Formula: C₂₁H₂₅N₅O₄S**Molecular Weight:** 443.2 g/mol**Solubility:** Soluble in DMSO at 10 mg/ml.**Purity:** >98%**CAS:** 905579-51-3

Western blot analysis of extracts from K-562 cells, untreated (-) or treated with MLN4924 (Pevonedistat) (300 nM, 24 hr; +), using NEDD8 (19E3) Rabbit mAb #2754 (upper) or α -Actinin (D6F6) XP® Rabbit mAb #6487 (lower).

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 μ l of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.