



LKT Laboratories, Inc.

MLN-4924

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Product Information

Product ID M4454

CAS No. 905579-51-3

Chemical Name

Synonym MLN4924, Pevonedistat

Formula $C_{21}H_{25}N_5O_4S$

Formula Wt. 443.16

Melting Point

Purity $\geq 99\%$

Solubility Ethanol (12.5 mg/ml)

DMSO (20 mg/ml)

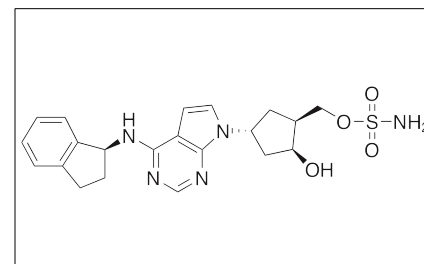
DMF (20 mg/ml)

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description

MLN4924 acts as a Nedd8-activating enzyme inhibitor, blocking proteasomal cullin protein neddylation by Cullin-RING E3 ubiquitin ligases. As a result, these proteins accumulate, inducing cell cycle arrest, senescence, autophagy, and/or apoptosis in cellular and animal models. This compound's inhibition of neddylation decreases NF- κ B-mediated release of pro-inflammatory cytokines TNF- α and IL-6. Pro-angiogenic HIF-1 also accumulates, potentially responsible for downstream inhibition of mTOR and the induction of autophagy.



Bulk quantities available upon request

Product ID	Size
M4454	1 mg
M4454	5 mg
M4454	25 mg

References

Yan ZH, Burkhardt A, Loke HK, et al. Quantifiable analysis of cellular pathway inhibition of a Nedd8-activating enzyme inhibitor, MLN4924, using AlphaScreen. *Anal Biochem.* 2013 Aug 15;439(2):109-15. PMID: 23624319.

Li L, Liu B, Dong T, et al. Neddylation pathway regulates the proliferation and survival of macrophages. *Biochem Biophys Res Commun.* 2013 Mar 15;432(3):494-8. PMID: 23416079.

Zhao Y, Xiong X, Jia L, et al. Targeting Cullin-RING ligases by MLN4924 induces autophagy via modulating the HIF1-REDD1-TSC1-mTORC1-DEPTOR axis. *Cell Death Dis.* 2012 Sep 6;3:e386. PMID: 22951983.

Luo Z, Pan Y, Jeong LS, et al. Inactivation of the Cullin (CUL)-RING E3 ligase by the NEDD8-activating enzyme inhibitor MLN4924 triggers protective autophagy in cancer cells. *Autophagy.* 2012 Nov;8(11):1677-9. PMID: 22874562.

Nawrocki ST, Griffin P, Kelly KR, et al. MLN4924: a novel first-in-class inhibitor of NEDD8-activating enzyme for cancer therapy. *Expert Opin Investig Drugs.* 2012 Oct;21(10):1563-73. PMID: 22799561.

Yang D, Tan M, Wang G, et al. The p21-dependent radiosensitization of human breast cancer cells by MLN4924, an investigational inhibitor of NEDD8 activating enzyme. *PLoS One.* 2012;7(3):e34079. PMID: 22457814.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.