



LKT Laboratories, Inc.

Nutlin-3

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID N8277

CAS No. 548472-68-0

Chemical Name

Synonym Nutlin3

Formula $C_{30}H_{30}Cl_2N_4O_4$

Formula Wt. 581.49

Melting Point

Purity $\geq 95\%$

Solubility DMSO 100 mg/mL (171.96 mM)

Ethanol 30 mg/mL (51.59 mM)

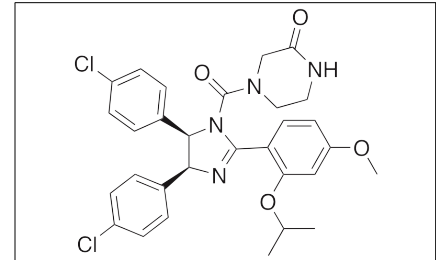
Water Insoluble

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

Ship Temp Ambient

Description

Nutlin-3 is an imidazoline inhibitor of MDM2, preventing the interaction between MDM2 and p53. Nutlin-3 exhibits anticancer chemotherapeutic and anti-diabetic activities. Nutlin-3 increases production of ROS, activation of ERK1/2, p38 MAPK, and JNK, and increases expression of heme oxygenase 1 (HO-1) in colon cancer cells and osteosarcoma cells; similarly, it induces apoptosis in hepatocellular carcinoma cells. Nutlin-3 also inhibits the epithelial-to-mesenchymal transition (EMT), inhibiting phosphorylation of Smad2/3, suppressing cell motility, and enhancing the efficacy of other chemotherapeutics in animal models. In animal models of diabetes, this compound attenuates the effects of the disease, decreasing weight loss, increasing IL-12 production, and lowering rates of hyperglycemia.



Bulk quantities available upon request

Product ID	Size
N8277	1 mg
N8277	5 mg

References Shi X, Liu J, Ren L, et al. Nutlin-3 downregulates p53 phosphorylation on serine(392) and induces apoptosis in hepatocellular carcinoma cells. *BMB Rep.* 2014 Apr;47(4):221-6. PMID: 24286312.

Choe YJ, Lee SY, Ko KW, et al. Nutlin-3 induces HO-1 expression by activating JNK in a transcription-independent manner of p53. *Int J Oncol.* 2014 Mar;44(3):761-8. PMID: 24366007.

Wu Y, Fu Y, Zheng L, et al. Nutlin-3 inhibits epithelial-mesenchymal transition by interfering with canonical transforming growth factor- β 1-Smad-Snail/Slug axis. *Cancer Lett.* 2014 Jan 1;342(1):82-91. PMID: 24001610.

Secchiero P, Toffoli B, Melloni E, et al. The MDM2 inhibitor Nutlin-3 attenuates streptozotocin-induced diabetes mellitus and increases serum level of IL-12p40. *Acta Diabetol.* 2013 Dec;50(6):899-906. PMID: 23615706.

Tisato V, Norcio A, Voltan R, et al. MDM2 non-genotoxic inhibitors as innovative therapeutic approaches for the treatment of pediatric malignancies. *Curr Med Chem.* 2013;20(17):2226-36. PMID: 23458617.

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