

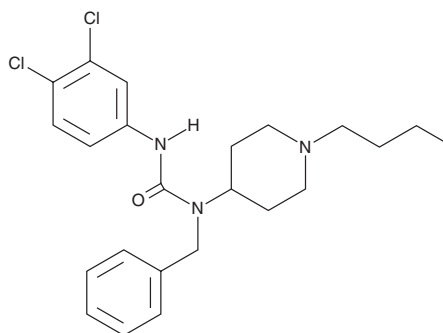
PRODUCT INFORMATION



NACM-OPT

Item No. 42379

CAS Registry No.: 2089293-61-6
Formal Name: N-(1-butyl-4-piperidiny)-N'-(3,4-dichlorophenyl)-N-(phenylmethyl)-urea
MF: $C_{23}H_{29}Cl_2N_3O$
FW: 434.4
Purity: $\geq 98\%$
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NACM-OPT is supplied as a solid. A stock solution may be made by dissolving the NACM-OPT in the solvent of choice, which should be purged with an inert gas. NACM-OPT is soluble (≥ 10 mg/ml) in DMSO and ethanol.

Description

NACM-OPT is an inhibitor of the protein-protein interaction between ubiquitin-protein ligase E2M (UBE2M) and DCN1-like protein 1 (DCNL1; $IC_{50} = 0.079 \mu M$ in a time-resolved FRET (TR-FRET) assay).¹ It is selective for DCNL1 over DCNL3, DCNL4, and DCNL5 ($IC_{50}s = >50 \mu M$) but does inhibit DCNL2 at $12.5 \mu M$. NACM-OPT ($10 \mu M$) reduces cullin 1 NEDDylation levels in CAL-33 tongue squamous cell carcinoma cells. It inhibits anchorage-independent growth in HCC95 lung squamous cell carcinoma cells when used at a concentration of $10 \mu M$. Intracutaneous administration of NACM-OPT (3 mg/kg per day) also prevents decreases in epidermal thickness, follicle length, and melanin levels induced by hydrogen peroxide (H_2O_2) in mice.²

References

1. Scott, D.C., Hammill, J.T., Min, J., *et al.* Blocking an N-terminal acetylation-dependent protein interaction inhibits an E3 ligase. *Nat. Chem. Biol.* **13**(8), 850-857 (2017).
2. Xiong, R., Shen, Q., Li, Y., *et al.* NACM-OPT protects keratinocytes from H_2O_2 -induced cell damage by promoting autophagy. *Ann. N. Y. Acad. Sci.* **1537**(1), 155-167 (2024).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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