

PRODUCT INFORMATION



NGI 1

Item No. 31519

CAS Registry No.: 790702-57-7

Formal Name: 5-[(dimethylamino)sulfonyl]-
N-(5-methyl-2-thiazolyl)-2-(1-
pyrrolidinyl)-benzamide

Synonym: N-linked Glycosylation Inhibitor 1

MF: $C_{17}H_{22}N_4O_3S_2$

FW: 394.5

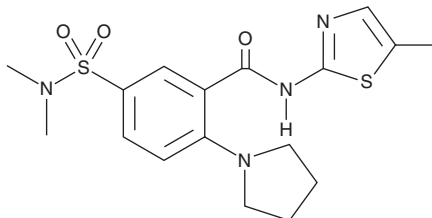
Purity: $\geq 98\%$

UV/Vis.: λ_{max} : 287 nm

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

NGI 1 is supplied as a solid. A stock solution may be made by dissolving the NGI 1 in the solvent of choice, which should be purged with an inert gas. NGI 1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of NGI 1 in these solvents is approximately 10 mg/ml.

NGI 1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NGI 1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NGI 1 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NGI 1 is an oligosaccharyltransferase (OST) inhibitor.¹ It binds to and stabilizes the STT3B catalytic subunit of OST in a cellular thermal shift assay (CETSA) and inhibits N-linked glycosylation in a reporter assay using D54 ER-LucT cells ($IC_{50} = 1.1 \mu M$). NGI 1 (10 μM) reduces glycosylation and membrane localization of EGFR in H3255 lung adenocarcinoma cells and inhibits proliferation of PC-9 and A549 non-small cell lung cancer (NSCLC) cells. It inhibits dengue and Zika virus replication in HEK293 cells ($EC_{50}s = 0.85$ and $2.2 \mu M$, respectively).² NGI 1 also reduces viral RNA in HEK293 cells infected with West Nile virus or yellow fever virus.

References

1. Lopez-Sambrooks, C., Shrima, S., Khodier, C., et al. Oligosaccharyltransferase inhibition induces senescence in RTK-driven tumor cells. *Nat. Chem. Biol.* **12**(12), 1023-1030 (2016).
2. Puschnik, A.S., Marceau, C.D., Ooi, Y.S., et al. A small-molecule oligosaccharyltransferase inhibitor with pan-flaviviral activity. *Cell Rep.* **21**(11), 3032-3039 (2017).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM