

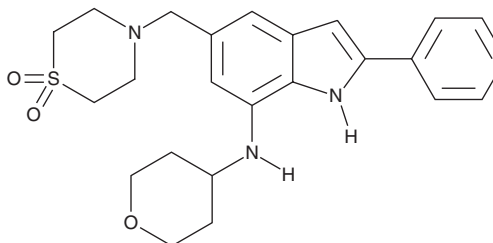
PRODUCT INFORMATION



NecroX-7

Item No. 42135

CAS Registry No.: 1120332-55-9
Formal Name: 5-[(1,1-dioxido-4-thiomorpholinyl)methyl]-2-phenyl-N-(tetrahydro-2H-pyran-4-yl)-1H-indol-7-amine
Synonyms: LC28-0126, Necrosis Inhibitor 7
MF: C₂₄H₂₉N₃O₃S
FW: 439.6
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

NecroX-7 is supplied as a solid. A stock solution may be made by dissolving the necroX-7 in the solvent of choice, which should be purged with an inert gas. NecroX-7 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

Description

NecroX-7 is a free radical scavenger and necrosis and ferroptosis inhibitor.¹⁻³ It scavenges DPPH (Item No. 14805) and ABTS (Item No. 27317) radicals in cell-free assays (EC₅₀s = 2.6 and 11.96 μM, respectively).¹ NecroX-7 inhibits necrosis induced by *tert*-butyl hydroperoxide (tBHP) in H9c2 cardiomyocytes and ferroptosis induced by erastin (Item No. 17754) in HT-1080 cells (IC₅₀s = 57 and 6 nM, respectively).^{2,3} It reduces the activity of NADPH oxidase (NOX) by 53.3% in H9c2 lysates when used at a concentration of 25 μM.² NecroX-7 (25 μM) prevents acetaminophen-induced decreases in cell viability and increases in reactive oxygen species (ROS) and reactive nitrogen species (RNS) production in primary mouse hepatocytes.¹ *In vivo*, NecroX-7 (100 mg/kg) reduces doxorubicin-induced cardiomyopathy in rats.²

References

1. Park, J.-H., Seo, K.-S., Tadi, S., *et al.* An indole derivative protects against acetaminophen-induced liver injury by directly binding to *N*-acetyl-*p*-benzoquinone imine in mice. *Antioxid. Redox Signal.* **18**(14), 1712-1722 (2013).
2. Park, J., Park, E., Ahn, B.-H., *et al.* NecroX-7 prevents oxidative stress-induced cardiomyopathy by inhibition of NADPH oxidase activity in rats. *Toxicol. Appl. Pharmacol.* **263**(1), 1-6 (2012).
3. Lu, Y., Shen, Z., Xu, Y., *et al.* Discovery of new phenyltetrazolium derivatives as ferroptosis inhibitors for treating ischemic stroke: An example development from free radical scavengers. *J. Med. Chem.* **67**(14), 11712-11731 (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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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