

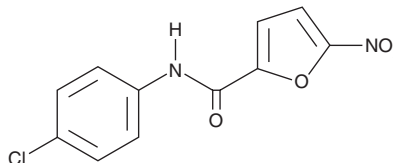
PRODUCT INFORMATION



LCS3

Item No. 36636

CAS Registry No.: 109844-92-0
Formal Name: N-(4-chlorophenyl)-5-nitro-2-furancarboxamide
MF: $C_{11}H_7ClN_2O_4$
FW: 266.6
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 251, 318 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 2 years



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

Laboratory Procedures

LCS3 is supplied as a crystalline solid. A stock solution may be made by dissolving the LCS3 in the solvent of choice, which should be purged with an inert gas. LCS3 is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml. LCS3 is slightly soluble in dimethyl formamide.

Description

LCS3 is an inhibitor of glutathione reductase (GR) and thioredoxin reductase (TrxR; $IC_{50}s = 3.3$ and $3.8 \mu\text{M}$, respectively).¹ It decreases the glutathione (GSH) to oxidized GSH (GSSG) ratio in NCI H1650 and H23 lung adenocarcinoma cells in a concentration-dependent manner. LCS3 ($3 \mu\text{M}$) induces apoptosis in NCI H1650 and H23 cells but not non-transformed HPL1D lung epithelial cells. It is also active against *M. tuberculosis* (MIC = $0.098 \mu\text{M}$).²

References

1. Johnson, F.D., Ferrarone, J., Liu, A., *et al.* Characterization of a small molecule inhibitor of disulfide reductases that induces oxidative stress and lethality in lung cancer cells. *Cell Rep.* **38**(6), 110343 (2022).
2. Gallardo-Marcias, R., Kumar, P., Jaskowski, M., *et al.* Optimization of N-benzyl-5-nitrofuran-2-carboxamide as an antitubercular agent. *Bioorg. Med. Chem. Lett.* **29**(4), 601-606 (2019).

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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