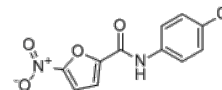


Product Name : LCS3
Cat. No. : PC-72885
CAS No. : 109844-92-0
Molecular Formula : C₁₁H₇ClN₂O₄
Molecular Weight : 266.637
Target : Other Targets
Solubility : 10 mM in DMSO



Biological Activity

LCS3 is a small molecule that selectively impairs the growth of human lung adenocarcinoma (LUAD) cells, induces oxidative stress, inhibits **glutathione disulfide reductase** (GSR) and thioredoxin reductase 1 (TXNRD1) with IC₅₀ of 3.3 and 3.8 μM, respectively.

LCS3 selectively inhibited the growth of 24/25 NSCLC cell lines at low micromolar concentrations (IC₅₀<5 μM), but not the non-transformed lung cell lines (IC₅₀>10 μM).

LCS3 induces ROS and NRF2 pathway activation in sensitive LUAD cells.

LCS3 inhibits glutathione disulfide reductase (GSR) and thioredoxin reductase 1 (TXNRD1) with IC₅₀ of 3.3 and 3.8 μM, respectively, inhibits GSR through a reversible, uncompetitive mechanism.

LCS3 induces synergistic inhibition of the glutathione and thioredoxin pathways.

References

Fraser D Johnson, et al. Cell Rep. 2022 Feb 8;38(6):110343.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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