# Data Sheet (Cat.No.T211601)

TargetMol

L14-8

## Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

## Biological Description

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|---|---|
| Description | L14-8 is a potent inducer of ferroptosis and facilitates the degradation of PLK1 through ubiquitination, while enhancing TP53 phosphorylation and SAT1 transcription, leading to ferroptosis and the death of cancer cells. L14-8 is applicable in studies of advanced prostate cancer. |
| Targets(IC50) | Ferroptosis,PLK,MDM-2/p53 |
| In vitro | L14-8 demonstrates significant cytotoxic effects, inducing over 80% cell death in C4-2B and 22Rv1 cells at concentrations of 5-25 μM over 48 hours, while showing no remarkable impact on the growth of normal prostate cells at 25 μM. Additionally, L14-8 at 10 μM for 24-48 hours triggers ferroptosis in C4-2B and 22Rv1 cells by transcriptionally activating SAT1 expression, thereby increasing MDA levels. Furthermore, L14-8 concentrations ranging from 0-10 μM over 0-24 hours activate SAT1 transcription in C4-2B and 22Rv1 cells through binding to PLK1 and enhancing PLK1-mediated TP53 phosphorylation and expression. |
| In vivo | When administered intraperitoneally at 10-20 mg/kg once daily for 25 days, L14-8 effectively suppresses prostate tumor growth in the C4-2B xenograft mouse model, while exhibiting no significant toxicity. |