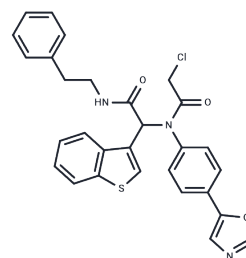


## GPX4-IN-3

## Chemical Properties

CAS No. :	2761004-85-5
Formula:	C <sub>29</sub> H <sub>24</sub> ClN <sub>3</sub> O <sub>3</sub> S
Molecular Weight:	530.04
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

Description	GPX4-IN-3 (26a) is a potent inhibitor of glutathione peroxidase 4 (GPX4), selectively inducing ferroptosis. It demonstrates a 71.7% inhibition rate of GPX4 at a concentration of 1 $\mu$ M .
Targets(IC50)	Ferroptosis, Glutathione Peroxidase, GPX
In vitro	The IC <sub>50</sub> values of GPX4-IN-3 (26a) in 4T1, MCF-7, HT1080, and HT1080 (Fer-1 treated) cells are 0.78 $\mu$ M, 6.9 $\mu$ M, 0.15 $\mu$ M, and 4.73 $\mu$ M, respectively [1]. GPX4-IN-3 (26a) exhibits excellent GPX4 inhibitory activity, with an inhibition rate of 71.7% at 1.0 $\mu$ M, compared with 45.9% for RSL-3 [1]. GPX4-IN-3 (26a) shows favorable selectivity and significantly increases lipid peroxide (LPO) levels, effectively inducing ferroptosis [1]. GPX4-IN-3 (26a) induces ferroptosis most likely by inhibiting GPX4 activity and promoting the accumulation of intracellular peroxides [1]. GPX4-IN-3 (26a) significantly increases ROS levels in 4T1 cells, and this effect can be reversed by Ferrostatin-1 (fer-1) [1].
In vivo	GPX4-IN-3 (26a) exhibits antitumor activity and favorable biosafety in vivo [1].

## Solubility Information

Solubility	DMSO: 54 mg/mL (101.88 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.8867 mL	9.4333 mL	18.8665 mL
5 mM	0.3773 mL	1.8867 mL	3.7733 mL
10 mM	0.1887 mL	0.9433 mL	1.8867 mL
50 mM	0.0377 mL	0.1887 mL	0.3773 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Congjun Xu, et al. Discovery of a Potent Glutathione Peroxidase 4 Inhibitor as a Selective Ferroptosis Inducer. J Med Chem. 2021 Sep 23;64(18):13312-13326.

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