TrxR-IN-5

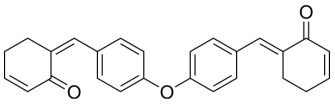
Cat. No.: HY-147803

Molecular Formula: $C_{26}H_{22}O_3$

Molecular Weight: 382.45

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB



Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (130.74 mM; ultrasonic and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6147 mL	13.0736 mL	26.1472 mL
	5 mM	0.5229 mL	2.6147 mL	5.2294 mL
	10 mM	0.2615 mL	1.3074 mL	2.6147 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

TrxR-IN-5 (compound 4f) is a potent TrxR (thioredoxin reductase) inhibitor, with an IC_{50} of 0.16 μM. TrxR-IN-5 increases the levels of ROS, thus leading to potent antiproliferative effects. TrxR-IN-5 exhibits prominent anticacer and anti-metastasis effects[1].

IC_{50} & Target

IC_{50}: 0.16 ± 0.02 μM (TrxR)[1]

In Vivo

TrxR-IN-5 (compound 4f) (MDA-MB-231 xenograft in BALB/c nude mice, 0-25 mg/kg, IP, once) shows strong inhibition potency toward solid tumors of breast cancer in vivo[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Meng C, et al. Efficacy of novel methylenecyclohexenone derivatives as TrxR inhibitors in suppressing the proliferation and metastasis of human cancer cells. Bioorg Chem. 2020 Dec;105:104360.

Caution: Product has not been fully validated for medical applications. For research use only.

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