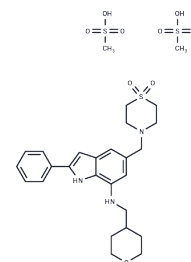


## NecroX-5

## Chemical Properties

CAS No. :	1383718-29-3
Formula:	C27H39N3O9S3
Molecular Weight:	645.81
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	NecroX-5, a derivative of NecroX, exhibits anti-inflammatory and anti-cancer activities. NecroX-5 reduces intracellular calcium concentration.
Targets(IC50)	Calcium Channel
In vitro	NecroX-5 (10-40 $\mu$ M) reduces mitochondrial ROS levels and inhibits AKT and breast cancer cell migration. NecroX-5 (10 $\mu$ M) blocks Ca <sup>2+</sup> influx and decreases intracellular calcium concentration in 4T1 cells[1]. In LPS-stimulated H9C2 cells, NecroX-5 (10 $\mu$ M), effectively decreases the increased TGF- $\beta$ 1, pSmad2, TNF- $\alpha$ and the expression of Dcn [2].
In vivo	In TUBO-P2] tumour-bearing mice, NecroX-5 (2.5 mg/kg) inhibits the metastasis of breast cancer cell[1].

## Solubility Information

Solubility	DMSO: 160 mg/mL (247.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (15.48 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (15.48 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.5484 mL	7.7422 mL	15.4844 mL
5 mM	0.3097 mL	1.5484 mL	3.0969 mL
10 mM	0.1548 mL	0.7742 mL	1.5484 mL
50 mM	0.031 mL	0.1548 mL	0.3097 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

Park JH, et al. NecroX-5 prevents breast cancer metastasis by AKT inhibition via reducing intracellular calcium levels. *Int J Oncol.* 2017 Jan;50(1):185-192.

Thu VT, et al. NecroX-5 exerts anti-inflammatory and anti-fibrotic effects via modulation of the TNF $\alpha$ /Dcn/TGF $\beta$ 1/Smad2 pathway in hypoxia/reoxygenation-treated rat hearts. *Korean J Physiol Pharmacol.* 2016 May;20(3):305-14.

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