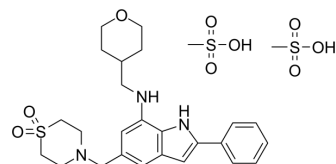


## NecroX-5

Cat. No.:	HY-104015
CAS No.:	1383718-29-3
Molecular Formula:	C <sub>27</sub> H <sub>39</sub> N <sub>3</sub> O <sub>9</sub> S <sub>3</sub>
Molecular Weight:	645.81
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 170 mg/mL (263.24 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				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
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.83 mg/mL (4.38 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.83 mg/mL (4.38 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	NecroX-5 is a derivative of the NecroX, reduces intracellular calcium concentration, and possesses anti-inflammatory and anti-cancer activity.
IC <sub>50</sub> & Target	Calcium channel <sup>[1]</sup>
In Vitro	NecroX-5 (10 or 40 μM) inhibits breast cancer cell migration, which is correlated with mitoROS reduction, and mediated by AKT inhibition. NecroX-5 (10 μM) decreases intracellular calcium concentration in 4T1 cells by blocking Ca <sup>2+</sup> influx, which mediated the inhibition of cell migration, AKT downregulation and the reduction of mitochondrial ROS levels <sup>[1]</sup> . NecroX-5 (10 μM) treatment for 24 h, effectively decreases the increased TNFα, TGFβ1, pSmad2 and the expression of Dcn in LPS-stimulated H9C2 cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## In Vivo

NecroX-5 (2.5 mg/kg, everyday other day) inhibits breast cancer cell metastasis in TUBO-P2J tumour-bearing mice<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Int Immunopharmacol. 2020 Apr;81:106257.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. 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.

[2]. 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.

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

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