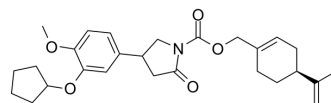


## NEO214

<b>Cat. No.:</b>	HY-124582		
<b>CAS No.:</b>	1361198-80-2		
<b>Molecular Formula:</b>	C <sub>27</sub> H <sub>35</sub> NO <sub>5</sub>		
<b>Molecular Weight:</b>	453.57		
<b>Target:</b>	Autophagy; mTOR		
<b>Pathway:</b>	Autophagy; PI3K/Akt/mTOR		
<b>Storage:</b>	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (220.47 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.2047 mL	11.0237 mL	22.0473 mL
	5 mM	0.4409 mL	2.2047 mL	4.4095 mL
	10 mM	0.2205 mL	1.1024 mL	2.2047 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: 2.5 mg/mL (5.51 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: 2.5 mg/mL (5.51 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: 2.5 mg/mL (5.51 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

NEO214 is an autophagy inhibitor and a covalent conjugate of the PDE4 inhibitor Rolipram (HY-16900) and perillyl alcohol (HY-N7000). It has anti-cancer activity and blood-brain barrier (BBB) permeability. Over sex. NEO214 prevents autophagy-lysosome fusion, thereby blocking autophagic flux and triggering glioma cell death. The process involves mTOR activation, andTFEB(Transcription Factor EB) aggregation. NEO214 inhibitionMacroautophagy/autophagy in glioblastoma cells has the potential to overcome chemotherapy resistance in glioblastoma<sup>[1]</sup>.

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## REFERENCES

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[1]. Ou M, et al. Inhibition of autophagy and induction of glioblastoma cell death by NEO214, a perillyl alcohol-rolipram conjugate. *Autophagy*. 2023 Dec;19(12):3169-3188.

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

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