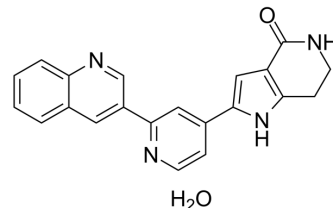


## MK2-IN-3 hydrate

<b>Cat. No.:</b>	HY-112457		
<b>CAS No.:</b>	1186648-22-5		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>18</sub> N <sub>4</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	358.39		
<b>Target:</b>	MAPKAPK2 (MK2)		
<b>Pathway:</b>	MAPK/ERK Pathway		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (348.78 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.7903 mL	13.9513 mL	27.9026 mL
5 mM	0.5581 mL	2.7903 mL	5.5805 mL
10 mM	0.2790 mL	1.3951 mL	2.7903 mL

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

### BIOLOGICAL ACTIVITY

#### Description

MK2-IN-3 hydrate (compound 16) is an orally active, selective, and ATP-competitive MAPKAP-K2 (MK-2) inhibitor with an IC<sub>50</sub> of 0.85 nM. MK2-IN-3 hydrate is exceptional selectivity against MK-3 (IC<sub>50</sub>=0.21 μM), MK-5 (IC<sub>50</sub>=0.081 μM), ERK2 (IC<sub>50</sub>=3.44 μM), MNK1 (IC<sub>50</sub>=5.7 μM) as well as CDK2, JNK2, IKK2, MSK1, and MSK2<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 0.85 nM (MK-2), 0.21 μM (MK-3), 0.081 μM (MK-5), 3.44 μM (ERK2), 5.7 μM (MNK1)<sup>[1]</sup>

#### In Vitro

MK2-IN-3 hydrate suppresses TNFα production in U397 cells with an IC<sub>50</sub> of 4.4 μM<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- J Biol Chem. 2023 Apr 12;104699.

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

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## REFERENCES

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[1]. Anderson DR, et al. Pyrrolopyridine inhibitors of mitogen-activated protein kinase-activated protein kinase 2 (MK-2). J Med Chem. 2007 May 31;50(11):2647-54.

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

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