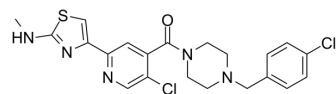


## WNK-IN-11

|                           |   |       |         |
|---------------------------|---|-------|---------|
| <b>Cat. No.:</b>          | HY-112094   |       |         |
| <b>CAS No.:</b>           | 2123489-30-3  |       |         |
| <b>Molecular Formula:</b> | C <sub>21</sub> H <sub>21</sub> Cl <sub>2</sub> N <sub>3</sub> OS |       |         |
| <b>Molecular Weight:</b>  | 462   |       |         |
| <b>Target:</b>            | Ser/Thr Protease  |       |         |
| <b>Pathway:</b>           | Metabolic Enzyme/Protease   |       |         |
| <b>Storage:</b>           | Powder  | -20°C | 3 years |
|                           |   | 4°C   | 2 years |
|                           | In solvent  | -80°C | 2 years |
|                           |   | -20°C | 1 year  |



### SOLVENT & SOLUBILITY

|   |   |                          |            |            |
|---|---|--------------------------|------------|------------|
| <b>In Vitro</b>   | DMSO : 150 mg/mL (324.68 mM; Need ultrasonic)   |                          |            |            |
|   |   | Solvent<br>Concentration | Mass       |            |
|   |   |                          | 1 mg       | 5 mg       |
|   |   |                          | 10 mg      |            |
| <b>Preparing Stock Solutions</b>  | <b>1 mM</b>   | 2.1645 mL                | 10.8225 mL | 21.6450 mL |
|   | <b>5 mM</b>   | 0.4329 mL                | 2.1645 mL  | 4.3290 mL  |
|   | <b>10 mM</b>  | 0.2165 mL                | 1.0823 mL  | 2.1645 mL  |
| Please refer to the solubility information to select the appropriate solvent. |   |                          |            |            |
| <b>In Vivo</b>  | <ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline<br/>Solubility: ≥ 2.5 mg/mL (5.41 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil<br/>Solubility: ≥ 2.5 mg/mL (5.41 mM); Clear solution</li> </ol> |                          |            |            |

### BIOLOGICAL ACTIVITY

|                                     |  |
|-------------------------------------|--|
| <b>Description</b>                  | WNK-IN-11 is an allosteric With-No-Lysine (WNK) kinase inhibitor, with an IC <sub>50</sub> of 4 nM for WNK1.   |
| <b>IC<sub>50</sub> &amp; Target</b> | IC <sub>50</sub> : 4 nM (WNK1) <sup>[1]</sup> .  |
| <b>In Vitro</b>                     | WNK-IN-11 (compound 11) shows IC <sub>50</sub> <2 μM in the cellular OSR1 phosphorylation assay with reasonable aqueous solubility, albeit with still rather high microsomal clearance. WNK-IN-11 shows ATP noncompetitive inhibition. When tested against a panel of 440 human kinases at 10 μM concentration, 2500-fold above enzyme IC <sub>50</sub> value, WNK-IN-11 shows excellent selectivity with only a few significant off-target kinase inhibitions, most notably BTK and feline encephalitis virus-related (FER) kinase, neither of which are implicated for blood pressure regulation. This excellent selectivity profile is consistent with the predicted allosteric binding mode outside the highly conserved ATP-pocket <sup>[1]</sup> . |

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

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## CUSTOMER VALIDATION

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- Nat Commun. 2021 Jul 27;12(1):4546.

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

## REFERENCES

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[1]. Yamada K, et al. Optimization of Allosteric With-No-Lysine (WNL) Kinase Inhibitors and Efficacy in Rodent Hypertension Models. J Med Chem. 2017 Aug 24;60(16):7099-7107.

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

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