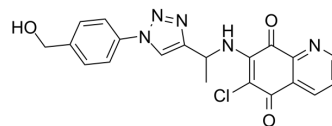


## M5N36

|                    |   |       |          |
|--------------------|---|-------|----------|
| Cat. No.:          | HY-132578   |       |          |
| CAS No.:           | 2832887-40-6  |       |          |
| Molecular Formula: | C <sub>20</sub> H <sub>16</sub> ClN <sub>5</sub> O <sub>3</sub> |       |          |
| Molecular Weight:  | 409.83  |       |          |
| Target:            | Phosphatase   |       |          |
| Pathway:           | Metabolic Enzyme/Protease                                       |       |          |
| Storage:           | Powder  | -20°C | 3 years  |
|                    | In solvent  | -80°C | 6 months |
|                    |   | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

|   |  |                          |       |           |            |            |
|---|--|--------------------------|-------|-----------|------------|------------|
| In Vitro  | DMSO : 25 mg/mL (61.00 mM; Need ultrasonic)  |                          |       |           |            |            |
|   | Preparing Stock Solutions  | Solvent<br>Concentration | Mass  | 1 mg      | 5 mg       | 10 mg      |
|   |  |                          | 1 mM  | 2.4400 mL | 12.2002 mL | 24.4004 mL |
|   |  |                          | 5 mM  | 0.4880 mL | 2.4400 mL  | 4.8801 mL  |
|   |  |                          | 10 mM | 0.2440 mL | 1.2200 mL  | 2.4400 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<br>Solubility: ≥ 2.5 mg/mL (6.10 mM); Clear solution |                          |       |           |            |            |
|   | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.5 mg/mL (6.10 mM); Clear solution            |                          |       |           |            |            |

### BIOLOGICAL ACTIVITY

|                           |   |  |
|---------------------------|---|--|
| Description               | M5N36 is a potent and selective Cdc25C inhibitor with IC <sub>50</sub> values of 0.15, 0.19, 0.06 μM for Cdc25A, Cdc25B, Cdc25C, respectively. M5N36 shows anti-proliferative activity and increases the expression of p-CDK1 and p-CDK2 <sup>[1]</sup> . |  |
| IC <sub>50</sub> & Target | IC <sub>50</sub> : 0.15 μM (Cdc25A); 0.19 μM (Cdc25B); 0.06 μM (Cdc25C) <sup>[1]</sup>  |  |
| In Vitro                  | M5N36 (5, 10 μM; 24 h) increases the expression of p-CDK1 and p-CDK2 in MDA-MB-231 cells <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only.<br>Cell Proliferation Assay <sup>[1]</sup>   |  |
|                           | Cell Line:  | Eca-109, HepG2, MCF-TAM, MDA-MB-231, Raji, SGC-7901, SW-620, HUVEC cells |

|                                      |  |
|--------------------------------------|--|
| Concentration:                       |  |
| Incubation Time:                     |  |
| Result:                              | Showed anti-proliferative activity with IC <sub>50</sub> s of 2.88, 3.57, 10.00, 2.00, 1.20, 6.03, 3.39, 2.40 μM for Eca-109, HepG2, MCF-TAM, MDA-MB-231, Raji, SGC-7901, SW-620, HUVEC cells, respectively. |
| Western Blot Analysis <sup>[1]</sup> |  |
| Cell Line:                           | MDA-MB-231 cells   |
| Concentration:                       | 5, 10 μM   |
| Incubation Time:                     | 24 h   |
| Result:                              | Increased the expression of Cdc25A, Cdc25B, increased the expression of p-CDK1 and p-CDK2.   |

## REFERENCES

[1]. Tao Y, et al. Discovery of potent and selective Cdc25 phosphatase inhibitors via rapid assembly and in situ screening of Quinonoid-focused libraries. *Bioorg Chem.* 2021 Oct;115:105254.

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

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