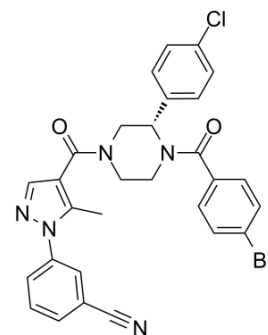


## eIF4A3-IN-1

|                           |   |       |          |
|---------------------------|---|-------|----------|
| <b>Cat. No.:</b>          | HY-101513   |       |          |
| <b>CAS No.:</b>           | 2095486-67-0  |       |          |
| <b>Molecular Formula:</b> | C <sub>29</sub> H <sub>23</sub> BrClN <sub>5</sub> O <sub>2</sub> |       |          |
| <b>Molecular Weight:</b>  | 588.88  |       |          |
| <b>Target:</b>            | Eukaryotic Initiation Factor (eIF); Autophagy                     |       |          |
| <b>Pathway:</b>           | Cell Cycle/DNA Damage; Autophagy                                  |       |          |
| <b>Storage:</b>           | Powder  | -20°C | 3 years  |
|                           |   | 4°C   | 2 years  |
|                           | In solvent  | -80°C | 6 months |
|                           |   | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

|   |   |   |             |             |              |
|---|---|---|-------------|-------------|--------------|
| <b>In Vitro</b>   | DMSO : 200 mg/mL (339.63 mM; Need ultrasonic)   |   |             |             |              |
|   | <b>Preparing Stock Solutions</b>  | <b>Solvent</b> \ <b>Mass</b> \ <b>Concentration</b> | <b>1 mg</b> | <b>5 mg</b> | <b>10 mg</b> |
|   |   | <b>1 mM</b>   | 1.6981 mL   | 8.4907 mL   | 16.9814 mL   |
|   |   | <b>5 mM</b>   | 0.3396 mL   | 1.6981 mL   | 3.3963 mL    |
|   | <b>10 mM</b>  | 0.1698 mL   | 0.8491 mL   | 1.6981 mL   |              |
| Please refer to the solubility information to select the appropriate solvent. |   |   |             |             |              |
| <b>In Vivo</b>  | 1. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 5 mg/mL (8.49 mM); Clear solution |   |             |             |              |

### BIOLOGICAL ACTIVITY

|                                     |  |
|-------------------------------------|--|
| <b>Description</b>                  | eIF4A3-IN-1 (compound 53a) is a selective eukaryotic initiation factor 4A3 (eIF4A3) inhibitor (IC <sub>50</sub> =0.26 μM; K <sub>d</sub> =0.043 μM), which binds to a non-ATP binding site of eIF4A3 and shows significant cellular nonsense-mediated RNA decay (NMD) inhibition at 10 and 3 μM and can be as a probe for further study of eIF4A3, the exon junction complex (EJC), and NMD <sup>[1]</sup> . |
| <b>IC<sub>50</sub> &amp; Target</b> | IC <sub>50</sub> : 0.2 μM (eIF4A3) <sup>[1]</sup><br>K <sub>d</sub> : 0.043 μM (eIF4A3) <sup>[1]</sup>   |

### REFERENCES

[1]. Ito M, et al. Discovery of Novel 1,4-Diacylpiperazines as Selective and Cell-Active eIF4A3 Inhibitors. J Med Chem. 2017 Apr 27;60(8):3335-3351.

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

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