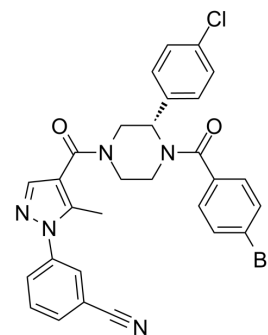


## eIF4A3-IN-1

<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)		
<b>Pathway:</b>	Cell Cycle/DNA Damage		
<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 : 200 mg/mL (339.63 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	1.6981 mL	8.4907 mL	16.9814 mL
		5 mM	0.3396 mL	1.6981 mL	3.3963 mL
10 mM		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 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> K <sub>d</sub> : 0.043 μM (eIF4A3) <sup>[1]</sup>

### CUSTOMER VALIDATION

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- Clin Transl Med. 2022 Nov;12(11):e11102.
  - Anesthesiology. 2023 Mar 3.
  - Exp Cell Res. 2021 Sep 29;408(1):112855.

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

## REFERENCES

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[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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