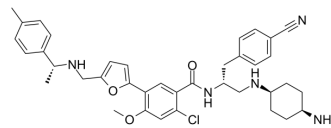


## BAY-850

Cat. No.:	HY-119254		
CAS No.:	2099142-76-2		
Molecular Formula:	C <sub>38</sub> H <sub>44</sub> ClN <sub>5</sub> O <sub>3</sub>		
Molecular Weight:	654.24		
Target:	Epigenetic Reader Domain		
Pathway:	Epigenetics		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 62.5 mg/mL (95.53 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration	Mass	Mass	Mass
1 mM	1.5285 mL	7.6425 mL	15.2849 mL	
5 mM	0.3057 mL	1.5285 mL	3.0570 mL	
10 mM	0.1528 mL	0.7642 mL	1.5285 mL	

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 6.25 mg/mL (9.55 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 6.25 mg/mL (9.55 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

BAY-850 is a potent and isoform selective ATPase family AAA domain-containing protein 2 (ATAD2) inhibitor, with an IC<sub>50</sub> of 166 nM.

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

ATAD2<sup>[1]</sup>.

#### In Vitro

BAY-850 competes with the binding of a mono-acetylated Histone H4 N-terminal peptide to ATAD2 BD with an IC<sub>50</sub> of 166 nM measured in TR-FRET assay. BAY-850 displaces the tetra-acetylated peptide with an IC<sub>50</sub> of 157 nM and a K<sub>D</sub> of 115 nM respectively. The unprecedented isoform selectivity of BAY-850 suggests a different mode of action to those exhibited by canonical BD inhibitors<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

- Commun Biol. 2021 Mar 25;4(1):399.
- J Enzyme Inhib Med Chem. 2023 Dec;38(1):2242601.
- Eur Rev Med Pharmacol. 2020 Oct;24(19):9860-9868.
- Discov Oncol. 2023 May 26;14(1):79.

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## REFERENCES

[1]. Fernández-Montalván AE, et al. Isoform-Selective ATAD2 Chemical Probe with Novel Chemical Structure and Unusual Mode of Action. ACS Chem Biol. 2017 Nov 17;12(11):2730-2736.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA