

Product Name: C646 Revision Date: 06/25/2024

# **Product Data Sheet**

## C646

Cat. No.: B1577

**CAS No.:** 328968-36-1 **Formula:** C24H19N3O6

**M.Wt:** 445.42

Synonyms:

In Vitro

Target: Chromatin/Epigenetics

Pathway: Histone Acetyltransferases

Storage: Store at -20°C



insoluble in H2O;  $\geqslant$ 11.14 mg/mL in DMSO;  $\geqslant$ 3.29 mg/mL in EtOH with ultrasonic

	Mass	1mg	5mg	10mg
Preparing Stock Solutions	Concentration			
	1 mM	2.2451 mL	11.2254 mL	22.4507 mL
	5 mM	0.4490 mL	2.2451 mL	4.4901 mL
	10 mM	0.2245 mL	1.1225 mL	2.2451 mL

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

# **Biological Activity**

IC <sub>50</sub> & Target 400 nM(Ki) (p300/CBP)	Shortsummary	HAT p300-CBP inhibitor,cell	HAT p300-CBP inhibitor,cell-permeable		
Call Viability Aggay	IC <sub>50</sub> & Target	400 nM(Ki) (p300/CBP)	400 nM(Ki) (p300/CBP)		
Cell Viability Assay		Cell Viability Assay	Taggir Inc. M.		
Cell Line: RAW264.7 murine macrophages	In Vitro	Cell Line: (2000 Con	RAW264.7 murine macrophages		
Preparation method: The solubility of this compound in DMSO is >10 mM. General tips for obtaining		Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining		
In Vitro a higher concentration: Please warm the tube at 37°C for 10 minutes and/			a higher concentration: Please warm the tube at 37°C for 10 minutes and/or		
shake it in the ultrasonic bath for a while. Stock solution can be stored belo			shake it in the ultrasonic bath for a while. Stock solution can be stored below		
-20°C for several months.			-20°C for several months.		
Reacting conditions: 1, 5, 10, 15, 20, 25 or 30 μM for 16 hr; 15 or 30μM for 6 h, or at 30μM for 20		Reacting conditions:	1, 5, 10, 15, 20, 25 or 30 μM for 16 hr; 15 or 30μM for 6 h, or at 30μM for 20 h		

	Applications:	C646 decreased pro-inflammatory gene expression and NF-kB activity and inhibited histone deacetylases in RAW264.7 murine macrophages. Moreover,			
		C646 decreased α-tubulin acetylation in RAW264.7 cells.			
	Animal experiment	Animal experiment			
In Vivo	Animal models:	C57BL/6 male mice model			
	Dosage form:	2×0.75 μl injection volume in each case, 1.5 μg, administered over 2 min			
	Applications:	Inhibition of p300 by C646 in the infralimbic prefrontal cortex (ILPFC) enhanced the formation of fear extinction memory.			
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may			
		slightly differ with the theoretical value. This is caused by an experimental			
		system error and it is normal.			

#### **Product Citations**

1. Li N, Yang L, et al. "BET bromodomain inhibitor JQ1 preferentially suppresses EBV-positive nasopharyngeal carcinoma cells partially through repressing c-Myc." Cell Death Dis. 2018 Jul 9;9(7):761.PMID:29988031

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#### References

1Bowers, E. M., Yan, G., Mukherjee, C., Orry, A., Wang, L., Holbert, M. A., Crump, N. T., Hazzalin, C. A., Liszczak, G., Yuan, H., Larocca, C., Saldanha, S. A., Abagyan, R., Sun, Y., Meyers, D. J., Marmorstein, R., Mahadevan, L. C., Alani, R. M. and Cole, P. A. (2010) Virtual ligand screening of the p300/CBP histone acetyltransferase: identification of a selective small molecule inhibitor. Chem Biol. 17, 471-4822

2van den Bosch, T., Boichenko, A., Leus, N. G., Ourailidou, M. E., Wapenaar, H., Rotili, D., Mai, A., Imhof, A., Bischoff, R., Haisma, H. J. and Dekker, F. J. (2016) The histone acetyltransferase p300 inhibitor C646 reduces pro-inflammatory gene expression and inhibits histone deacetylases. Biochem Pharmacol. 102, 130-140

3Marek, R., Coelho, C. M., Sullivan, R. K., Baker-Andresen, D., Li, X., Ratnu, V., Dudley, K. J., Meyers, D., Mukherjee, C., Cole, P. A., Sah, P. and Bredy, T. W. (2011) Paradoxical enhancement of fear extinction memory and synaptic plasticity by inhibition of the histone acetyltransferase p300. J Neurosci. 31, 7486-7491

#### Caution

#### FOR RESEARCH PURPOSES ONLY.

#### NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

### **APExBIO Technology**

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