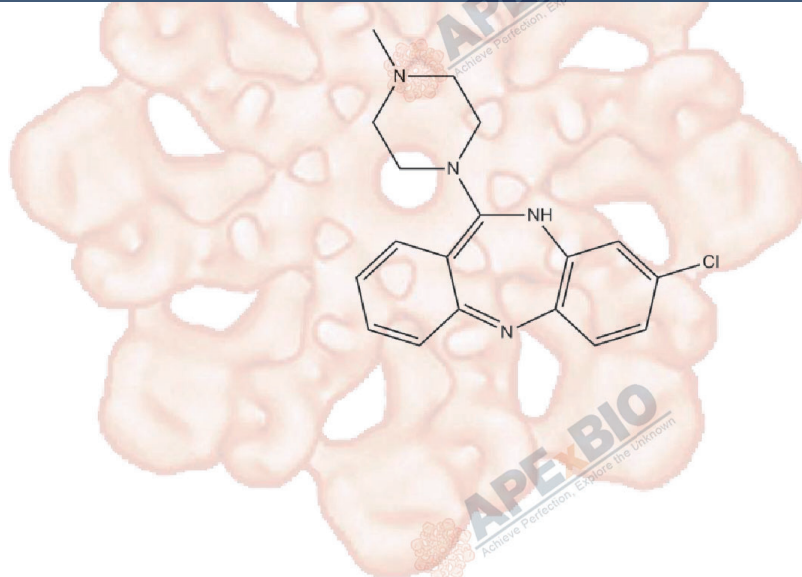


# Product Data Sheet

## Clozapine

<b>Cat. No.:</b>	B2235
<b>CAS No.:</b>	5786-21-0
<b>Formula:</b>	C <sub>18</sub> H <sub>19</sub> ClN <sub>4</sub>
<b>M.Wt:</b>	326.82
<b>Synonyms:</b>	
<b>Target:</b>	Neuroscience
<b>Pathway:</b>	Dopamine Receptor
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

insoluble in H<sub>2</sub>O; ≥14.95 mg/mL in DMSO; ≥2.7 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	3.0598 mL	15.2989 mL	30.5979 mL
	<b>5 mM</b>	0.6120 mL	3.0598 mL	6.1196 mL
	<b>10 mM</b>	0.3060 mL	1.5299 mL	3.0598 mL

Please refer to the solubility information to select the appropriate solvent

## Biological Activity

Shortsummary

5-HT receptor antagonist

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

Cell Line: Prefrontal cortical (PFC) neurons, Rats hepatocytes

Preparation method:

The solubility of this compound in DMSO is >10 mM. General tips for obtaining 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 below -20°C for several months.

Reacting conditions:

0.1-10 μM for 16-72 h; or 20 - 80 μM for 48 h

	Applications:	Clozapine induced initial pERK1-specific blockade and subsequent activation of the ERK response in prefrontal cortical (PFC) neurons in vitro [1]. Moreover, Clozapine (20-80 $\mu$ M) concentration-dependently induced hepatotoxicity [2].
In Vivo	<b>Animal experiment</b>	
	Animal models:	C57BL/6 mouse model, Male Sprague-Dawley (SD) rats model
	Dosage form:	1, 2.5 mg/kg; intraperitoneal administration, for 15 h, 24 h; or 25 mg/kg, oral administration, for 7 days
	Applications:	Clozapine induced ERK1/2 cell signaling activation via the EGF receptor in mouse prefrontal cortex [1]. Moreover, Clozapine treatment led to marked accumulation of triglyceride and increase in gglutamyl transpeptidase (g-GT) activity, liver weight, and serum AST in rats [2].
	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. Anderson AG, Gaffy CB, et al. "Inhibition of Epstein-Barr Virus Lytic Reactivation by the Atypical Antipsychotic Drug Clozapine." *Viruses*. 2019 May 17;11(5). pii: E450.PMID:31108875

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## References

- Pereira, A., Sugiharto-Winarno, A., Zhang, B., Malcolm, P., Fink, G. and Sundram, S. (2012) Clozapine induction of ERK1/2 cell signalling via the EGF receptor in mouse prefrontal cortex and striatum is distinct from other antipsychotic drugs. *Int J Neuropsychopharmacol*. 15, 1149-1160
- Jia, L. L., Zhong, Z. Y., Li, F., Ling, Z. L., Chen, Y., Zhao, W. M., Li, Y., Jiang, S. W., Xu, P., Yang, Y., Hu, M. Y., Liu, L. and Liu, X. D. (2014) Aggravation of clozapine-induced hepatotoxicity by glycyrrhetic acid in rats. *J Pharmacol Sci*. 124, 468-479

## 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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