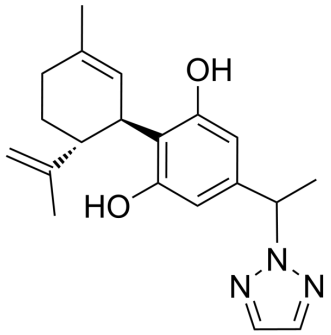
CIAC001

Cat. No.:	HY-155850
CAS No.:	2649154-82-3
Molecular Formula:	$C_{20}H_{25}N_3O_2$
Molecular Weight:	339.43
Target:	Pyruvate Kinase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CIAC001 is a Pyruvate Kinase PKM2 inhibitor with anti-neuroinflammatory activity. CIAC001 inhibits LPS-induced proinflammatory nitric oxide (NO) production and protects immunologically active BV-2 cells (IC_{50}=2.5 μM). CIAC001 also has anti-neuroinflammation in mouse models and inhibits chronic morphine-induced addiction[1].
IC_{50} & Target	PKM2[1]
In Vitro	CIAC001 (10 μM; 6 h) inhibits LPS (200 ng/mL)-induced microglia morphology change in BV-2 cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	CIAC001 (20 μg/kg, and 0.2 mg/kg, i.p, once daily for 7 days) dose-dependently attenuates Naloxone (HY-137279, opioid receptor antagonist) precipitated withdrawal jumps and significantly inhibits the development of morphine-induced behavioral sensitization during the induction period, in morphine-dependent mice[1]. CIAC001 (20 mg/kg, i.p, once daily for 7 days)has no apparent potential for memory decline or cognitive impairment in mice Y maze test[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jin S, et al. Cannabidiol Analogue CIAC001 for the Treatment of Morphine-Induced Addiction by Targeting PKM2. J Med Chem. 2023 Aug 24;66(16):11498-11516.

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