Ph-HTBA

Cat. No.: HY-151797

CAS No.: 2368927-41-5

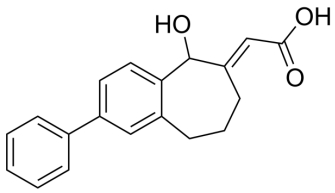
Molecular Formula: $C_{19}H_{18}O_3$

Molecular Weight: 294.34

Target: CaMK

Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ph-HTBA is a high-affinity, brain-penetrating modulator for CaMKIIα. Ph-HTBA has binding affinity for CaMKIIα with a K_d value of 757 nM. Ph-HTBA can be used for the research of ischemia and neurodegenerative disorders[1].
IC_{50} & Target	Kd: 757 nM (CaMKIIα)[1]
In Vitro	Ph-HTBA can inhibit HOCPCA binding with a K_i value of 1.4 μM[1]. Ph-HTBA has binding affinity for CaMKIIα with a K_d value of 757 nM[1]. Ph-HTBA (compound 1i) has a marked hub thermal stabilization effect along with a distinct CaMKIIα Trp403 flip upon binding[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Ph-HTBA has good cellular permeability and low microsomal clearance and shows brain permeability after systemic administration to mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Yongsong Tian,et al. Exploring the NCS-382 Scaffold for CaMKIIα Modulation: Synthesis, Biochemical Pharmacology, and Biophysical Characterization of Ph-HTBA as a Novel High-Affinity Brain-Penetrant Stabilizer of the CaMKIIα Hub Domain. J Med Chem. 2022 Nov 8.

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

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