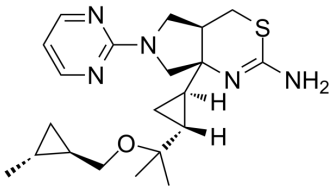
BACE1/2-IN-1

Cat. No.:	HY-147758
CAS No.:	2671036-34-1
Molecular Formula:	$C_{21}H_{31}N_5OS$
Molecular Weight:	401.57
Target:	Beta-secretase; Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BACE1/2-IN-1 (compound 34) is a potent BACE1 and BACE2 inhibitor, with an IC_{50} of 0.01 and 0.0053 μM, respectively. BACE1/2-IN-1 shows a combination of lower Pgp efflux ratio and improved passive permeability. BACE1/2-IN-1 displays reduced liver microsomal metabolic stability[1].
IC_{50} & Target	IC_{50}: 0.0053 μM (BACE2), 0.01 μM (BACE1), 160 μM (Cathepsin D)[1]
In Vitro	BACE1/2-IN-1 (compound 34) demonstrates slight selectivity for BACE2 and retained >3000 fold selectivity against Cathepsin D[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BACE1/2-IN-1 (compound 34) (PDAPP (V717F) transgenic mice, 0-100 mg/kg, Subcutaneous injection, once) shows significant reduction in PDAPP mouse cortex Aβ at 100 mg/kg (40%), and 30 mg/kg (24%), but not at 10 mg/kg (12%NS)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Winneroski LL, et al. Preparation and biological evaluation of BACE1 inhibitors: Leveraging trans-cyclopropyl moieties as ligand efficient conformational constraints. Bioorg Med Chem. 2020 Jan 1;28(1):115194.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA