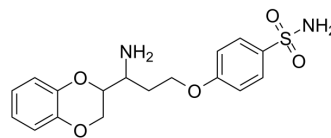


DPP IV/hCA II-IN-1

Cat. No.:	HY-151578
CAS No.:	2836996-95-1
Molecular Formula:	C ₁₇ H ₂₀ N ₂ O ₅ S
Molecular Weight:	364.42
Target:	Dipeptidyl Peptidase; Carbonic Anhydrase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DPP IV/hCA II-IN-1 is a potent and selective dipeptidyl peptidase IV (DPP IV) and carbonic anhydrase (CA) inhibitor with an IC ₅₀ value of 0.049 μM for DPP IV and with K _i values of 0.0361, 0.0428, 0.0941, 0.1328, 0.2615, and 3.034 μM for CA II, CA VB, CA VA, CA IX, CA I, and CA IV, respectively ^[1] .			
IC₅₀ & Target	CA \boxtimes 36.1 nM (IC ₅₀)	CA I 0.2615 μM (K _i)	hCA II 0.0361 μM (K _i)	hCA IX 0.1328 (K _i)
In Vitro	<p>DPP IV/hCA II-IN-1 (compound 12; 100 nM and 5 μM; 1 h; Caco-2 cells) inhibits cellular DPP IV activity by 60.65% and 71.86% at 100.0 nM and 5.0 μM, respectively^[1].</p> <p>DPP IV/hCA II-IN-1 (1.0 μM) can be uptaken by Caco-2 cells to 2874, 4562, and 6250 RFU after 15, 30, and 60 min, respectively^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>			
In Vivo	<p>DPP IV/hCA II-IN-1 (compound 12; 2 μM, 0.5 mg/mL; CD-1 mouse and Sprague-Dawley (SD) rat) exhibits modest stability in mouse and rat microsomes with 27.5 and 16.7% of remaining, respectively^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>			

REFERENCES

[1]. Artasensi A, et, al. Discovery of a Potent and Highly Selective Dipeptidyl Peptidase IV and Carbonic Anhydrase Inhibitor as "Antidiabetes" Agents Based on Repurposing and Morphing of WB-4101. J Med Chem. 2022 Oct 6.

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

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