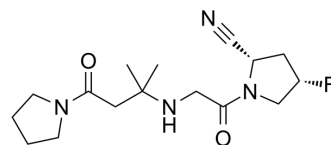


DBPR108

Cat. No.:	HY-12528		
CAS No.:	1186426-66-3		
Molecular Formula:	C ₁₆ H ₂₅ FN ₄ O ₂		
Molecular Weight:	324.39		
Target:	Dipeptidyl Peptidase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 25 mg/mL (77.07 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.0827 mL	15.4135 mL	30.8271 mL
	5 mM	0.6165 mL	3.0827 mL	6.1654 mL
	10 mM	0.3083 mL	1.5414 mL	3.0827 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DBPR108 is a potent, selective, and orally bioavailable dipeptide-derived inhibitor of DPP4 with IC₅₀ of 15 nM; no inhibition on DPP8 and DPP9. IC₅₀ value: 15 nM [1] Target: DPP4 inhibitor DBPR108 is an IC₅₀=15 nM DPP IV inhibitor displays a more than 3000-fold selectivity over DPP8 DPP9, FAP and DPP-II. The in vivo effects of DBPR108, including inhibition of plasma DPP-IV activity and suppression of blood glucose elevation, were also demonstrated. DBPR108 is a potent, selective, long-acting and safe DPP-IV inhibitor as a potential treatment of type 2 diabetes mellitus.

REFERENCES

[1]. Yeh TK, et al. (2S,4S)-1-[2-(1,1-dimethyl-3-oxo-3-pyrrolidin-1-yl-propylamino)acetyl]-4-fluoro-pyrrolidine-2-carbonitrile: a potent, selective, and orally bioavailable dipeptide-derived inhibitor of dipeptidyl peptidase IV. *Bioorg Med Chem Lett*. 2010 Jun

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