Treprostinil-$^{13}C_2$,d

Cat. No.: HY-100441S1

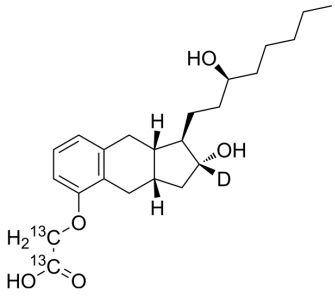
Molecular Formula: $C_{21}{}^{13}C_2H_{33}DO_5$

Molecular Weight: 393.5

Target: Prostaglandin Receptor; Isotope-Labeled Compounds

Pathway: GPCR/G Protein; Others

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



BIOLOGICAL ACTIVITY

Description	Treprostinil-$^{13}C_2$,d is the ^{13}C- and deuterium labeled Treprostinil. Treprostinil (UT-15) is a potent DP1 and EP2 agonist with EC50 values of 0.6±0.1 and 6.2±1.2 nM, respectively.	
IC_{50} & Target	EP	DP
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[51]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

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[2]. Ghonem N, et al. Treprostinil, a prostacyclin analog, ameliorates ischemia-reperfusion injury in rat orthotopic liver transplantation. Am J Transplant. 2011 Nov;11(11):2508-16.

[3]. Kazemi Z, et al. Repurposing Treprostinil for Enhancing Hematopoietic Progenitor Cell Transplantation. Mol Pharmacol. 2016 Jun;89(6):630-44.

[4]. Nikam VS, et al. Treprostinil inhibits the recruitment of bone marrow-derived circulating fibrocytes in chronic hypoxic pulmonary hypertension. Eur Respir J. 2010 Dec;36(6):1302-14.

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[7]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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