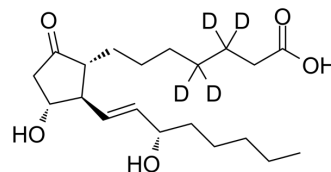


## Prostaglandin E1-d4

<b>Cat. No.:</b>	HY-B0131S
<b>CAS No.:</b>	211105-33-8
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>30</sub> D <sub>4</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	358.51
<b>Target:</b>	Prostaglandin Receptor; Endogenous Metabolite
<b>Pathway:</b>	GPCR/G Protein; Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Prostaglandin E1-d4 (Alprostadiol-d4) is the deuterium labeled Prostaglandin E1. Prostaglandin E1 (Alprostadiol) is a prostanoid receptor ligand, with K <sub>s</sub> 's of 1.1 nM, 2.1 nM, 10 nM, 33 nM and 36 nM for mouse EP3, EP4, EP2, IP and EP1, respectively. Prostaglandin E1 induces vasodilation and inhibits platelet aggregation. Prostaglandin E1 can be used as a vasodilator for the research of peripheral vascular diseases <sup>[1][2][3]</sup> .
<b>In Vitro</b>	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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Kiriya M, et, al. Ligand binding specificities of the eight types and subtypes of the mouse prostanoid receptors expressed in Chinese hamster ovary cells. *Br J Pharmacol.* 1997 Sep;122(2):217-24.
- [3]. Cattaneo MG, et, al. Alprostadiol suppresses angiogenesis in vitro and in vivo in the murine Matrigel plug assay. *Br J Pharmacol.* 2003 Jan;138(2):377-85.
- [4]. Hauck EW, et, al. Prostaglandin E1 long-term self-injection programme for treatment of erectile dysfunction--a follow-up of at least 5 years. *Andrologia.* 1999;31 Suppl 1:99-103.

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

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