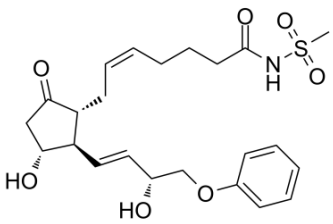
Sulprostone

Cat. No.:	HY-19360
CAS No.:	60325-46-4
Molecular Formula:	$C_{23}H_{31}NO_7S$
Molecular Weight:	465.56
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Storage:	Solution, -20°C, 2 years



BIOLOGICAL ACTIVITY

Description	Sulprostone (SHB 286) is a potent and selective EP3 receptor agonist. Sulprostone (SHB 286) is a prostaglandin E2 (PGE2) analogue and has antiulcer and nonsteroidal abortifacient effects. Sulprostone has potential for the research of pregnancy termination and hemorrhages during delivery[1][2][3].
IC_{50} & Target	EP3 Receptor
In Vitro	Sulprostone (SHB 286) has K_i values of 21 nM and 0.6 nM for EP1 and EP3 in cultured Chinese hamster ovary cells[1]. Sulprostone (1, 1.5 or 2 mg/mL) does not significantly modify the viability and the purity of Dendritic cells (DCs). Sulprostone impairs spontaneous and directed DC migration independently from its concentration. Sulprostone reduces the expression of CCR7 and impairs migration of DCs[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sulprostone (SHB 286; 0.5 mg/kg; IV) has a $T_{1/2}$ of 0.451 hours, a CL of 56 mL/min•kg, a V_{ss} of 0.583 L/kg and an AUC of 149 ng•h/mL[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male cynomolgus monkey[3]
Dosage:	0.5 mg/kg (Pharmacokinetic Analysis)
Administration:	IV
Result:	Had a $T_{1/2}$ of 0.451 hours, a CL of 56 mL/min•kg, a V_{ss} of 0.583 L/kg and an AUC of 149 ng•h/mL.

REFERENCES

[1]. S Narumiya, et al. Prostanoid receptors: structures, properties, and functions. Physiol Rev. 1999 Oct;79(4):1193-226.

[2]. Jenny Bulgarelli, et al. Skewing effect of sulprostone on dendritic cell maturation compared with dinoprostone. Cytotherapy. 2018 Jun;20(6):851-860.

[3]. Yifan Shi, et al. Bioanalysis of sulprostone, a prostaglandin E 2 analogue and selective EP 3 agonist, in monkey plasma by liquid chromatography-tandem mass

spectrometry. J Chromatogr B Analyt Technol Biomed Life Sci. 2018 Aug 15;1092:51-57.

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