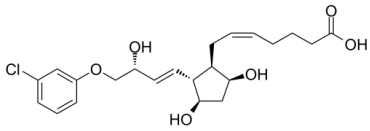
Data Sheet

Product Name:	(+)-Cloprostenol
Cat. No.:	CS-7779
CAS No.:	54276-21-0
Molecular Formula:	$C_{22}H_{29}ClO_6$
Molecular Weight:	424.92
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
Solubility:	Ethanol : 50 mg/mL (117.67 mM; Need ultrasonic); DMSO : 100 mg/mL (235.34 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

(+)-Cloprostenol is a prostaglandin F2α (PGF2α) analogue, and shows selective agonistic activity at the **prostaglandin receptor**. **In Vitro:** D-Cloprostenol and PGF2 alpha are equipotent, about 150 times more potent than dl-cloprostenol ($P < 0.05$) and approximately 280 times more potent than PGE1 in inhibiting [^{3}H]PGF2 alpha binding to corpus luteum cell membranes. However, d-cloprostenol and PGF2 alpha are about 10 times more potent than dl-cloprostenol and approximately 95 times more potent than PGE1 in myometrial cell membranes[2]. **In Vivo:** D-cloprostenol (15 g per head) is the lowest dose that consistently achieves abortion; D-cloprostenol causes mild adverse effects including salivation, defecation and hyperventilation in bitches weighing less than 10 kg. Intra-vesicle administration of a single low dose of d-cloprostenol is a safe and successful technique to induce abortion in the bitch[1].

References:

[1]. Manca R, et al. Intra-vesicle administration of D-cloprostenol for induction of abortion in mid-gestation bitches. Anim Reprod Sci. 2008 Jun;106(1-2):133-42. Epub 2007 Apr 21.

[2]. Re G, et al. Specific binding of dl-cloprostenol and d-cloprostenol to PGF2 alpha receptors in bovine corpus luteum and myometrial cell membranes. J Vet Pharmacol Ther. 1994 Dec;17(6):455-8.

CAIndexNames:

5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3R)-4-(3-chlorophenoxy)-3-hydroxy-1-buten-1-yl]-3,5-dihydroxycyclopentyl]-, (5Z)-

SMILES:

OC(CCC/C=C\C[C@@H]1[C@H]([C@H](O)C[C@@H]1O)/C=C/[C@@H](O)COC2=CC(Cl)=CC=C2)=O

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA