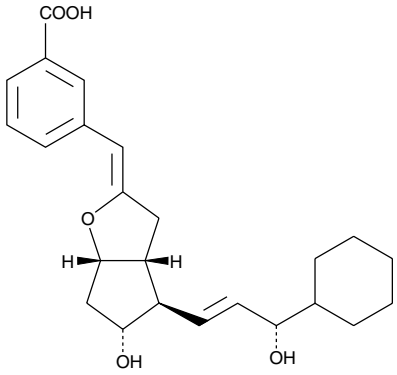
Product Information

Taprostene free acid

Item No. 10011348

CAS Registry No.:	108945-35-3
Formal Name:	3-[(Z)-[(3aR,4R,5R,6aS)-4-[(1E,3S)-3-cyclohexyl-3-hydroxy-1-propenyl] hexahydro-5-hydroxy-2H-cyclopenta[b] furan-2-ylidene]methyl]-benzoic acid
Synonyms:	CG 4203, Rheocyclan
MF:	$C_{24}H_{30}O_5$
FW:	398.5
Purity:	≥95%
Stability:	≥1 year at -20°C
Supplied as:	A crystalline solid
UV/Vis.:	λ_{max}: 233, 270 nm



Laboratory Procedures

For long term storage, we suggest that taprostene free acid be stored as supplied at -20°C. It should be stable for at least one year.

Taprostene free acid is supplied as a crystalline solid. For biological experiments, we suggest that organic solvent- free aqueous solutions of taprostene free acid be prepared by directly dissolving the crystalline compound in water. We do not recommend storing the aqueous solution for more than one day.

Taprostene is a stable prostacyclin (PGI_2) analog and agonist of the prostacyclin receptor, IP. It does not activate the PGE_2 receptor EP_4,[1] which, like IP, promotes vascular smooth muscle relaxation when stimulated. Taprostene has been used extensively to study the role of the IP receptor in tissue preparations and *in vivo*.[1-4] It has also been used in the screening and evaluation of potential IP antagonists.[5]

References

1. Jones, R.L. and Chan, K. Distinction between relaxations induced *via* prostanoid EP_4 and IP_1 receptors in pig and rabbit blood vessels. *Br. J. Pharmacol.* **134**, 313-324 (2001).
2. Tam, F.S.F., Chan, K., Bourreau, J.-P., *et al.* The mechanisms of enhancement and inhibition of field stimulation responses of guinea-pig vas deferens by prostacyclin analogues. *Br. J. Pharmacol.* **121**, 1413-1421 (1997).
3. Virgolini, I., Fitscha, P., Sinzinger, H., *et al.* Effects of taprostene, a stable prostacyclin analogue, on haemodynamics, platelet function and arachidonate metabolism in healthy volunteers. *Eur. J. Clin. Pharmacol.* **38**, 347-350 (1990).
4. Johnson, G., III, Furlan, L.E., Aoki, N., *et al.* Endothelium and myocardial protecting actions of taprostene, a stable prostacyclin analogue, after acute myocardial ischemia and reperfusion in cats. *Circ. Res.* **66**, 1362-1370 (1990).
5. Ayer, L.M., Wilson, S.M., Traves, S.L., *et al.* 4,5-dihydro-1H-imidazol-2-yl)-[4-(4-isopropoxy-benzyl)-phenyl]-amine (RO1138452) is a selective, pseudo-irreversible orthosteric antagonist at the prostacyclin (IP)-receptor expressed by human airway epithelial cells: IP-receptor-mediated inhibition of CXCL9 and CXCL10 release. *J. Pharmacol. Exp. Ther.* **324(2)**, 815-826 (2008).

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