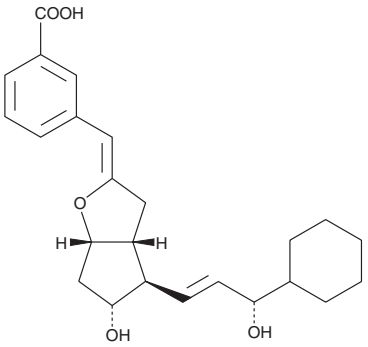
PRODUCT INFORMATION

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%
UV/Vis.:	λ_{max}: 233, 270 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Taprostene (free acid) is supplied as a crystalline solid. A stock solution may be made by dissolving the taprostene (free acid) in water. The solubility of taprostene (free acid) in water is approximately 25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

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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