

Product Data Sheet

Product Name: (R)-Butaprost

Cat. No.: GC40716

Chemical Properties

Cas. No. 69648-38-0

SMILES CCCC1(CCC1)C(O)C/C=C/[C@H]1C(O)CC(=O)C1CCCCCCC(=O)OC

Formula C₂₄H₄₀O₅

M.Wt 408.6

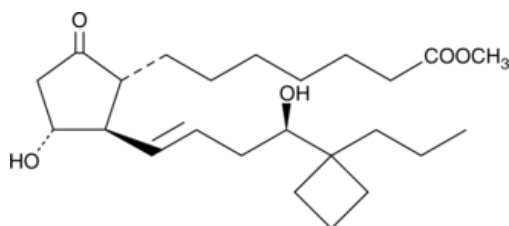
Solubility DMF: 25 mg/ml, DMSO: 30 mg/ml, Ethanol: 50 mg/ml, PBS (pH 7.2): 150 µg/ml

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Butaprost is a structural analog of prostaglandin E₂ (PGE₂) with good selectivity for the EP₂ receptor subtype. Butaprost has frequently been used to pharmacologically define the EP receptor expression profile of various human and animal tissues and cells. Serious confusion as to the structure of butaprost was generated by Gardiner in 1986, when he reported that the epimer of butaprost showing this selective activity was the C-16 (R)-epimer (See reference and Note). Butaprost binds with about 1/10 the affinity of PGE₂ to the recombinant murine EP₂ receptor, and does not bind

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

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appreciably to any of the other murine EP receptors or DP, FP, IP, or TP receptors. The pharmacology of (R)-butaprost has not been carefully studied, but it is generally considered to be the less active epimer. (NOTE: In the Gardiner paper in the 1986 British Journal of Pharmacology, butaprost appears on page 46 where it is given the name TR 4979. The structure as drawn is incorrect, in that the author was using and referring to the more active C-16 epimer, which is actually 16(S). The structure on page 46 shows the structure as 16(R). It was not until the late 1990's that careful studies both in the US and Japan correctly identified the actual configuration of C-16 in the compound called butaprost is 16(S).)

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