

PRODUCT INFORMATION



Beraprost (sodium salt)

Item No. 18230

CAS Registry No.: 88475-69-8
Formal Name: 2,3,3a,8b-tetrahydro-2-hydroxy-1-(3-hydroxy-4-methyl-1-octen-6-yn-1-yl)-1H-cyclopenta[b]benzofuran-5-butanoic acid, monosodium salt

Synonyms: ML 1129, Procyclin, TRK 100

MF: C₂₄H₂₉O₅ • Na

FW: 420.5

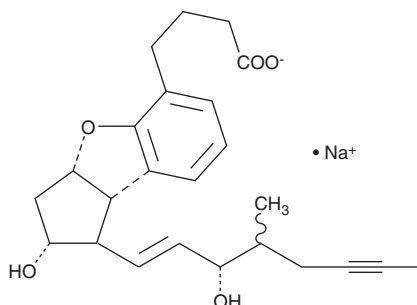
Purity: ≥98%

UV/Vis.: λ_{max}: 222, 281, 287 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

Beraprost (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the beraprost (sodium salt) in the solvent of choice, which should be purged with an inert gas. Beraprost (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of beraprost (sodium salt) in these solvents is approximately 20, 43, and 77 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of beraprost (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of beraprost (sodium salt) in PBS (pH 7.2) is approximately 19 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Beraprost is an analog of prostacyclin in which the unstable enol-ether has been replaced by a benzofuran ether function. This modification increases the plasma half-life from 30 seconds to several hours, and permits the compound to be taken orally. Doses of 20-100 µg in humans, given 1 to 3 times per day, have been demonstrated to improve clinical end points in diseases responsive to prostacyclin. Oral beraprost therapy improved the survival and pulmonary hemodynamics of patients with primary pulmonary hypertension.¹ Beraprost inhibits platelet aggregation in healthy subjects and in diabetic patients at similar doses.^{2,3}

References

1. Nagaya, N., Uematsu, M., Okano, Y., *et al.* Effect of orally active prostacyclin analogue on survival of outpatients with primary pulmonary hypertension. *J. Am. Coll. Cardiol.* **34**(4), 1188-1192 (1999).
2. Nony, P., Ffrench, P., Girard, P., *et al.* Platelet-aggregation inhibition and hemodynamic effects of beraprost sodium, a new oral prostacyclin derivative: A study in healthy male subjects. *Can. J. Physiol. Pharmacol.* **74**(8), 887-893 (1996).
3. Kato, H., Takashima, T., Kishikawa, H., *et al.* Effect of beraprost sodium, a stable prostaglandin I₂ analogue, on platelet aggregation in diabetes mellitus. *Int. J. Clin. Pharmacol. Res.* **16**(4-5), 99-102 (1996).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/15/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM