

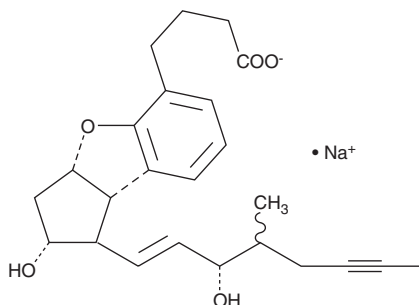
Product Information



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-ynyl)-1H-cyclopenta[b]benzofuran-5-butanoic acid, monosodium salt
Synonyms: ML 1129; Procyclin; TRK 100
MF: C₂₄H₂₉O₅ • Na
FW: 420.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 222, 281, 287 nm



Laboratory Procedures

For long term storage, we suggest that beraprost (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Beraprost (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the beraprost (sodium salt) in an organic solvent 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 22 mg/ml.

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 compound in aqueous buffers. The solubility of beraprost (sodium salt) in PBS (pH 7.2) is approximately 19 mg/ml. Store aqueous solutions of beraprost (sodium salt) on ice and use within 12 hours of preparation. Although the aqueous solutions of beraprost (sodium salt) may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Beraprost is an analog of prostacyclin in which the unstable enol-ether has been replaced by a benzofuran ether function.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**, 1188-1192 (1999).
2. Nony, P., French, 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**, 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** (1996).

Related Products

16(R)-AFP 07 (free acid) - Item No. 10991 • Carbaprostacyclin - Item No. 18210 • 5-*cis* Carbaprostacyclin - Item No. 18211 • 13,14-dehydro-15-cyclohexyl Carbaprostacyclin - Item No. 18212 • Prostaglandin I₂ - Item No. 18220

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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