

Product Information



Carbaprostacyclin-biotin

Item No. 18213

Formal Name: N-6,9 α -methylene-11 α ,15S-dihydroxy-prosta-5E,13E-dien-1-oyl-N-biotinoyl-1,5-diaminopentane

Synonyms: Carbacyclin-biotin, cPGI-biotin

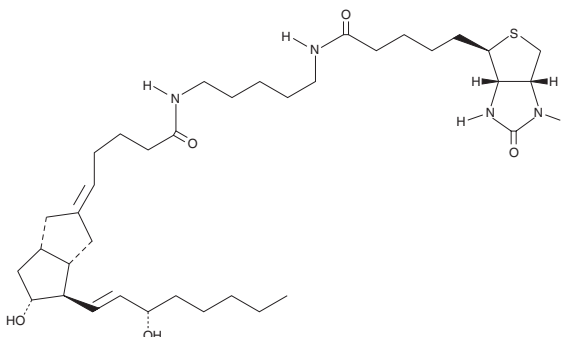
MF: C₃₆H₆₀N₄O₅S

FW: 661.0

Purity: \geq 95%

Stability: \geq 1 year at -20°C

Supplied as: A solution in ethanol



Laboratory Procedures

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

Carbaprostacyclin-biotin is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of carbaprostacyclin-biotin in these solvents is approximately 10 mg/ml.

Carbaprostacyclin-biotin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of carbaprostacyclin-biotin should be diluted with the aqueous buffer of choice. Carbaprostacyclin-biotin has a solubility of 100 μ g/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Carbaprostacyclin is a structural analog of prostacyclin (PGI₂) with about 1/10 the receptor binding affinity of prostacyclin.¹ Carbaprostacyclin is a relatively indiscriminant ligand for prostaglandin receptors, binding to all the recombinant human PG receptors, except the TP receptor, with an affinity which is a significant fraction of the natural ligand.² Carbaprostacyclin-biotin is therefore a useful affinity ligand for the binding and purification of a number of different receptors subtypes.

References

- Schrör, K., Darius, H., Matzky, R., *et al.* The antiplatelet and cardiovascular actions of a new carbacyclin derivative (ZK36374) - equipotent to PGI₂ *in vitro*. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **316**, 252-255 (1981).
- Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483**, 285-293 (2000).

Related Products

Carbaprostacyclin - Item No. 18210 • Carbaprostacyclin methyl ester - Item No. 9000183

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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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