

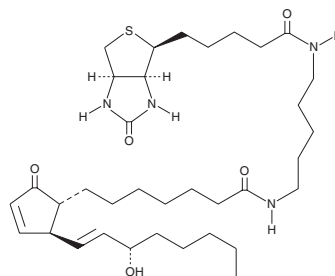
PRODUCT INFORMATION



Prostaglandin A₁-biotin

Item No. 10013

Formal Name: N-9-oxo-15S-hydroxy-prosta-10,13E-dien-1-oyl-N'-biotinoyl-1,6-diaminopentane
Synonym: PGA₁-biotin
MF: C₃₅H₅₈N₄O₅S
FW: 646.9
Purity: ≥95%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

Prostaglandin A₁ (PGA₁)-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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of PGA₁-biotin in these solvents is approximately 25 and 50 mg/ml, respectively.

PGA₁-biotin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of PGA₁-biotin should be diluted with the aqueous buffer of choice. The solubility of PGA₁-biotin in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGA₁ is one of the cyclopentenone prostaglandins, which have well documented antimitotic and antiproliferative effects.^{1,2} The activity of the compounds in this class, which includes prostaglandins in both the A- and J-series, may result from changes in gene expression and the interaction with non-classical (*i.e.*, non-G protein-coupled receptor) pathways. PGA₁-biotin is an affinity probe which allows PGA₁ to be detected through an interaction with the biotin ligand. PGA₁-biotin was designed to allow PGA₁ to be detected in complexes with nucleic acid or protein binding partners. It is thus a tool to be used in the general elucidation of the mechanism of action of the cyclopentenone prostaglandins.

References

1. Bregman, M.D. and Meyskens, F.L., Jr. Inhibition of human malignant melanoma colony-forming cells *in vitro* by prostaglandin A₁. *Cancer Res.* **43**(4), 1642-1645 (1983).
2. Lecal, P.M., Amici, C., Bonmassar, E., *et al.* Effects of cyclopentenone prostaglandins on myeloid cells during early infection with HTLV-I. II. Regulation of synthesis of inducible p72 heat shock protein. *J. Pharmacol. Exp. Ther.* **271**(2), 1096-1102 (1994).

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.

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