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- Trockeneiszuschlag
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- Expressversand

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PRODUCT INFORMATION



Prostaglandin A₂-biotin

Item No. 10010499

Formal Name: 9-oxo-15S-hydroxy-prosta-5Z,10,13E-trien-1-oyl-N'-biotinoyl-1,5-diaminopentane

Synonym: PGA₂-biotin

MF: C₃₅H₅₆N₄O₅S

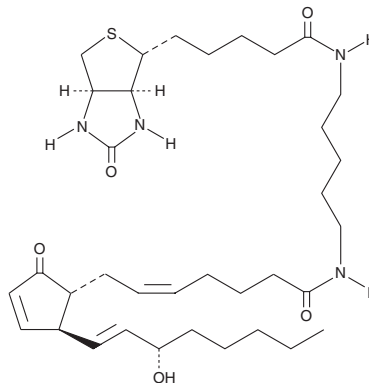
FW: 644.9

Purity: ≥95%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

Prostaglandin A₂-biotin (PGA₂-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. The solvent DMSO purged with an inert gas can be used. The solubility of PGA₂-biotin in DMSO is approximately 10 mg/ml.

Description

PGA₂ blocks cell cycle progression of NIH 3T3 cells at the G₁ and G₂/M phase.¹ It has antitumor effects, targeting scaffold/matrix attachment region-binding protein 1 (SMAR1) through an Hsp70-dependent mechanism.²⁻⁴ PGA₂ also induces apoptosis in HL-60 cells.⁵ PGA₂-biotin is an affinity probe which allows PGA₂ to be detected through an interaction with the biotin ligand. Biotinylated eicosanoids have been used to capture proteins which interact with the lipid.⁶

References

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2. Fukushima, M., Kato, T., Narumiya, S., *et al.* Prostaglandin A and J: Antitumor and antiviral prostaglandins. *Adv. Prostaglandin Thromboxane Leukot. Res.* **19**, 415-418 (1989).
3. Pavithra, L., Rampalli, S., Sinha, S., *et al.* Stabilization of SMAR1 mRNA by PGA₂ involves a stem-loop structure in the 5' UTR. *Nucleic Acids Res.* **35(18)**, 6004-6016 (2007).
4. Pavithra, L., Sreenath, K., Singh, S., *et al.* Heat-shock protein 70 binds to a novel sequence in 5' UTR of tumor suppressor SMAR1 and regulates its mRNA stability upon Prostaglandin A₂ treatment. *FEBS Lett.* **584**, 1187-1192 (2010).
5. Lee, S.-Y., Ahn, J.-H., Ko, K.W., *et al.* Prostaglandin A₂ activates intrinsic apoptotic pathway by direct interaction with mitochondria in HL-60 cells. *Prostaglandins Other Lipid Mediat.* **91**, 30-37 (2010).
6. Kang, L.-T. and Vanderhoek, J.Y. Synthesis and use of a novel biotinylated probe for the chemiluminescent detection of proteins that bind 15-hydroxyeicosatetraenoic acid. *Anal. Biochem.* **250**, 119-122 (1997).

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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