# PRODUCT INFORMATION



# Prostaglandin E<sub>2</sub>-PEG<sub>11</sub>-biotin

Item No. 9000376

Formal Name: 11α,15S-dihydroxy-9-oxo-prosta-

52,13E-dien-1-oyl-polyethylene glycol

11-N'-biotinoyl-1,5-diaminopentane

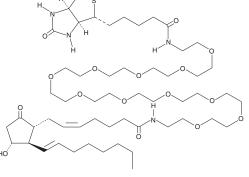
Synonym: PGE<sub>2</sub>-PEG<sub>11</sub>-biotin MF:  $C_{54}H_{96}N_4O_{17}S$ 

FW: 1,105.4 **Purity:** ≥98%

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**

 $Prostagland in \ E_2-PEG_{11}-biotin \ (PGE_2-PEG_{11}-biotin) \ is \ supplied \ as \ a \ solution \ in \ ethanol. \ To \ change \ the$ 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 PGE<sub>2</sub>-PEG<sub>11</sub>-biotin in these solvents is approximately 50 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. If an organic solvent-free solution of PGE2-PEG11-biotin is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PGE<sub>2</sub>-PEG<sub>11</sub>-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

PGE<sub>2</sub> is the major eicosanoid product of cyclooxygenase-1 and 2 in epithelial cells, leukocytes, reproductive tissues, and many others. PGE2 contracts smooth muscle, protects the gastric mucosa, modulates immune function, and regulates fertility and implantation. PGE2 acts through at least four G-protein coupled receptors,  $\mathsf{EP}_1\mathsf{-EP}_4$ .  $\mathsf{PGE}_2\mathsf{-PEG}_{11}\mathsf{-biotin}$  is an affinity probe which allows  $\mathsf{PGE}_2$  to be detected or immobilized using the biotin ligand. The  $\mathsf{PEG}_{11}$  moiety serves to separate the biotin linker from  $\mathsf{PGE}_2$  with a hydrophilic spacer. It is thus a tool to be used in the elucidation of PGE<sub>2</sub> actions or interactions in aqueous solutions.

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

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

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# **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