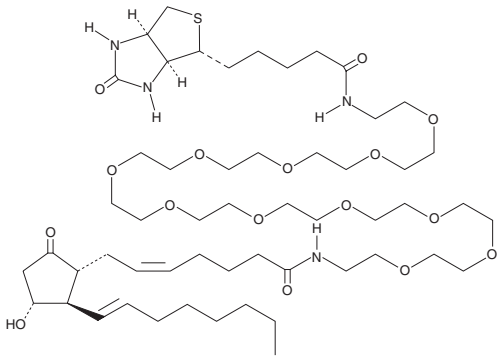
PRODUCT INFORMATION

Prostaglandin E_2-PEG_{11}-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_2-PEG_{11}-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

Prostaglandin 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_2-PEG_{11}-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 PGE_2-PEG_{11}-biotin is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PGE_2-PEG_{11}-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_2 is the major eicosanoid product of cyclooxygenase-1 and 2 in epithelial cells, leukocytes, reproductive tissues, and many others. PGE_2 contracts smooth muscle, protects the gastric mucosa, modulates immune function, and regulates fertility and implantation. PGE_2 acts through at least four G-protein coupled receptors, EP_1-EP_4. PGE_2-PEG_{11}-biotin is an affinity probe which allows PGE_2 to be detected or immobilized using the biotin ligand. The PEG_{11} moiety serves to separate the biotin linker from PGE_2 with a hydrophilic spacer. It is thus a tool to be used in the elucidation of PGE_2 actions or interactions in aqueous solutions.

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