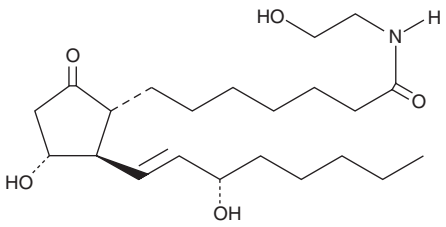
PRODUCT INFORMATION

Prostaglandin E_1 Ethanolamide

Item No. 13012

CAS Registry No.:	210976-81-1
Formal Name:	11α,15S-dihydroxy-N-(2-hydroxyethyl)-9-oxo-prost-13E-en-1-amide
Synonyms:	Alprostadil Ethanolamide, PGE_1-EA
MF:	$C_{22}H_{39}NO_5$
FW:	397.6
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Prostaglandin E_1 ethanolamide (PGE_1-EA) is supplied as a crystalline solid. A stock solution may be made by dissolving the PGE_1-EA in the solvent of choice, which should be purged with an inert gas. PGE_1-EA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PGE_1-EA in ethanol is approximately 50 mg/ml and approximately 30 mg/ml in DMSO and DMF.

PGE_1-EA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PGE_1-EA should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PGE_1-EA has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. The solubility of PGE_1-EA in isotonic saline is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PGE_1-EA is the ethanolamine-amide analog of PGE_1. Conversion of AEA, the ethanolamide of arachidonic acid, to PGE_2-EA has been demonstrated *in vitro*.[1,2] It is not established whether this conversion occurs in whole animals, nor has the pharmacology of the resultant prostaglandin ethanolamides been rigorously studied.

References

1. Yu, M., Ives, D., and Ramesha, C.S. Synthesis of prostaglandin E_2 ethanolamide from anandamide by cyclooxygenase-2. *J. Biol. Chem.* **272(34)**, 21181-21186 (1997).
2. Kozak, K.R., Crews, B.C., Morrow, J.D., *et al.* Metabolism of the endocannabinoids, 2-arachidonylglycerol and anandamide, into prostaglandin, thromboxane, and prostacyclin glycerol esters and ethanolamides. *J. Biol. Chem.* **277(47)**, 44877-44885 (2002).

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