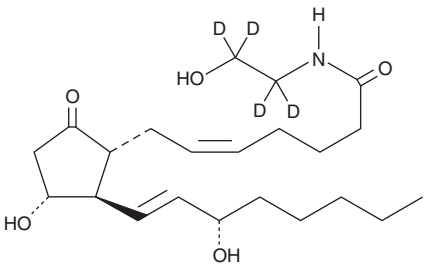
PRODUCT INFORMATION

Prostaglandin E2 Ethanolamide-d_4

Item No. 9001412

Formal Name: N-(2-hydroxyethyl)-9-oxo-11α,15S-dihydroxy-prosta-5Z,13E-dien-1-amide-d_4
Synonyms: Dinoprostone Ethanolamide-d_4, PGE_2-EA-d_4, Prostamide E_2-d_4
MF: $C_{22}H_{33}D_4NO_5$
FW: 399.6
Chemical Purity: ≥98% (PGE_2-EA)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
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 E_2 ethanolamide-d_4 (PGE_2-EA-d_4) is intended for use as an internal standard for the quantification of PGE_2-EA by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

PGE_2-EA-d_4 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 PGE_2-EA-d_4 in these solvents is approximately 100 mg/ml.

Description

PGE_2-EA is an analog of PGE_2 with improved water solubility and stability. PGE_2-EA acts as an agonist with all four known EP receptor subtypes, but with an affinity that is significantly reduced compare to PGE_2.[1] PGE_2-EA is produced by HCA-7 cells treated with arachidonoyl ethanolamide.[2]

References

1. Ross, R.A., Craib, S.J., Stevenson, L.A., *et al.* Pharmacological characterization of the anandamide cyclooxygenase metabolite: prostaglandin E_2 ethanolamide. *J. Phar. Exp. Ther.* **301(3)**, 900-907 (2002).
2. Kozak, K.R., Crews, B.C., Morrow, J.D., *et al.* Metabolism of the endocannabinoids, 2-arachidonylgycerol and anandamide, into prostaglandin, thromboxane, and prostacyclin glycerol esters and ethanolamides. *J. Biol. Chem.* **277(47),** 44877-44885 (2002).

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