

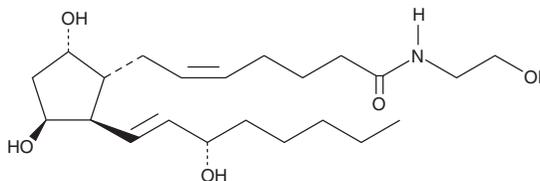
PRODUCT INFORMATION



11 β -Prostaglandin F_{2 α} Ethanolamide

Item No. 16522

CAS Registry No.: 714966-38-8
Formal Name: 9 α ,11 β ,15S-trihydroxy-N-(2-hydroxyethyl)-prosta-5Z,13E-dien-1-amide
Synonyms: 11-*epi* PGF_{2 α} -EA, 11 β -PGF_{2 α} -EA, 11 β -Prostamide F_{2 α}
MF: C₂₂H₃₉NO₅
FW: 397.6
Purity: \geq 95%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

11 β -Prostaglandin F_{2 α} ethanolamide (11 β -PGF_{2 α} -EA) is supplied as a solution in ethanol. To change the solvent, simply evaporate the 11 β -PGF_{2 α} -EA under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO purged with an inert gas can be used. The solubility of 11 β -PGF_{2 α} -EA in DMSO is approximately 10 mg/ml. 11 β -PGF_{2 α} -EA is also miscible in dimethyl formamide.

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 11 β -PGF_{2 α} -EA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 11 β -PGF_{2 α} -EA in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

11 β -PGF_{2 α} -EA is the theoretical hepatic metabolite of PGD₂-EA, produced during COX-2 metabolism of the endogenous cannabinoid AEA which is found in brain, liver, and other mammalian tissues.¹ AEA can be used directly by COX-2 and specific PG synthase to produce ethanolamide congeners of the classical PGs.^{2,3} PGD₂-EA is formed in activated RAW 264.7 cells treated with AEA.³

References

1. Bachur, N.R., Masek, K., Melmon, K.L., *et al.* Fatty acid amides of ethanolamine in mammalian tissues. *J. Biol. Chem.* **240**, 1019-1024 (1965).
2. Yu, M., Ives, D., and Ramesha, C.S. Synthesis of prostaglandin E₂ ethanolamide from anandamide by cyclooxygenase-2. *J. Biol. Chem.* **272**(34), 21181-21186 (1997).
3. 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).

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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