

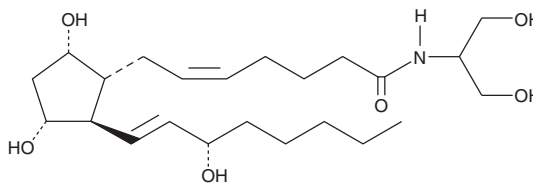
# PRODUCT INFORMATION



## Prostaglandin F<sub>2α</sub> serinol amide

Item No. 10194

**CAS Registry No.:** 1135226-99-1  
**Formal Name:** N-[(2-hydroxy-1-hydroxymethyl)ethyl]-9α,11α,15S-trihydroxy-prosta-5Z,13E-dien-1-amide  
**Synonym:** PGF<sub>2α</sub>-SA  
**MF:** C<sub>23</sub>H<sub>41</sub>NO<sub>6</sub>  
**FW:** 427.6  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that prostaglandin F<sub>2α</sub> serinol amide (PGF<sub>2α</sub>-SA) be stored as supplied at -20°C. It should be stable for at least one year.

PGF<sub>2α</sub>-SA 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 PGF<sub>2α</sub>-SA in these solvents is approximately 25 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 PGF<sub>2α</sub>-SA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PGF<sub>2α</sub>-SA in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

2-Arachidonyl glycerol (2-AG) exhibits cannabinoid agonist activity at the CB<sub>1</sub> receptor,<sup>1</sup> is an important endogenous monoglyceride species,<sup>2</sup> and is thus considered to be the natural ligand for the CB<sub>1</sub> receptor. 2-AG can also be metabolized by COX-2 and PGD, E, F, and I synthases to form PG 2-glycerol esters.<sup>3</sup> PGF<sub>2α</sub>-SA is a stable analog of PGF<sub>2α</sub> 2-glycerol ester. The biological activity of PGF<sub>2α</sub>-SA has not yet been determined.

### References

1. Sugiura, T., Kodaka, T., Kondo, S., *et al.* Is the cannabinoid CB<sub>1</sub> receptor a 2-arachidonoylglycerol receptor? Structural requirements for triggering a Ca<sup>2+</sup> transient in NG108-15 cells. *J. Biochem.* **122**, 890-895 (1997).
2. Kondo, S., Kondo, H., Nakane, S., *et al.* 2-Arachidonoylglycerol, and endogenous cannabinoid receptor agonist: Identification as one of the major species of monoacylglycerols in various rat tissues, and evidence for its generation through Ca<sup>2+</sup> -dependent and -independent mechanisms. *FEBS Lett.* **429**, 152-156 (1998).
3. Kozak, K.R., Crews, B.C., Morrow, J.D., *et al.* Metabolism of the endocannabinoids, 2-arachidonoylglycerol 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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