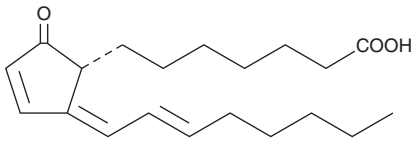
# PRODUCT INFORMATION

## 15-deoxy-$\Delta^{12,14}$-Prostaglandin $A_1$

*Item No. 10065*

**CAS Registry No.:** 573951-20-9
**Formal Name:** 9-oxo-prosta-10,12Z,14E-trien-1-oic acid
**Synonym:** 15-deoxy-$\Delta^{12,14}$-$PGA_1$
**MF:** $C_{20}H_{30}O_3$
**FW:** 318.5
**Purity:** ≥95%
**Stability:** ≥1 year at -80°C
**Supplied as:** A solution in methyl acetate
**UV/Vis.:** $\lambda_{max}$: 324 nm




### Laboratory Procedures

For long term storage, we suggest that 15-deoxy-$\Delta^{12,14}$-prostaglandin $A_1$ (15-deoxy-$\Delta^{12,14}$-$PGA_1$) be stored as supplied at -80˚C. It should be stable for at least one year.

15-deoxy-$\Delta^{12,14}$-$PGA_1$ is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate 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 15-deoxy-$\Delta^{12,14}$-$PGA_1$ 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. The solubility of 15-deoxy-$\Delta^{12,14}$-$PGA_1$ in PBS (pH 7.2) is approximately 2.4 mg/ml. Store aqueous solutions of 15-deoxy-$\Delta^{12,14}$-$PGA_1$ ice and use within 12 hours of preparation.

### Description

15-deoxy-$\Delta^{12,14}$-$PGA_1$ is a synthetic $PGA_1$ analog. It shares common structural features with 15-deoxy-$\Delta^{12,14}$-$PGJ_2$, which is a ligand for PPARγ.[1] Antimitotic and antitumor activity have been reported for a similar analog, but there are no published reports on the biological activity of 15-deoxy-$\Delta^{12,14}$-$PGA_1$ at this time.[2]

### References

1. Kliewer, S.A., Lenhard, J.M., Willson, T.M., *et al*. A prostaglandin $J_2$ metabolite binds peroxisome proliferator-activated receptor γ and promotes adipocyte differentiation. *Cell* **83**, 813-819 (1995).
2. Kato, T., Fukushima, M., Kurozumi, S., *et al*. Antitumor activity of $\Delta^7$-prostaglandin $A_1$ and $\Delta^{12}$-prostaglandin $J_2$ *in vitro* and *in vivo*. *Cancer Res.* **46**, 3538-3542 (1986).



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