

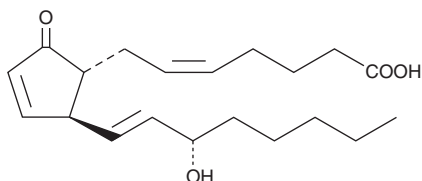
# PRODUCT INFORMATION



## Prostaglandin A<sub>2</sub> Quant-PAK Item No. 10006840

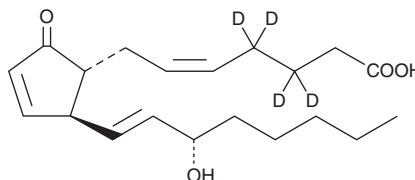
### Prostaglandin A<sub>2</sub>

CAS Registry No.: 13345-50-1  
Formal Name: 9-oxo-15-hydroxy-prosta-5Z,10,13E-trien-1-oic acid  
Synonyms: Medullin, PGA<sub>2</sub>  
MF: C<sub>20</sub>H<sub>30</sub>O<sub>4</sub>  
FW: 334.5  
Purity: ≥98%  
Stability: ≥1 year at -20°C  
Supplied as: A solution in methyl acetate  
UV/Vis.: λ<sub>max</sub>: 216 nm



### Prostaglandin A<sub>2</sub>-d<sub>4</sub>

CAS Registry No.: 201608-18-6  
Formal Name: 9-oxo-15S-hydroxy-prosta-5Z,10,13E-trien-1-oic-3,3,4,4-d<sub>4</sub> acid  
Synonyms: Medullin-d<sub>4</sub>, PGA<sub>2</sub>-d<sub>4</sub>  
MF: C<sub>20</sub>H<sub>26</sub>D<sub>4</sub>O<sub>4</sub>  
FW: 338.5  
Chemical Purity: ≥98%  
Deuterium Incorporation: ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</sub>); ≤1% d<sub>0</sub>  
Stability: ≥1 year at -20°C  
Supplied as: A solution in methyl acetate  
UV/Vis.: λ<sub>max</sub>: 216 nm ε: 11,000



### Description

This prostaglandin A<sub>2</sub> (PGA<sub>2</sub>) Quant-PAK contains 50 µg of PGA<sub>2</sub>-d<sub>4</sub> and 2-4 mg of PGA<sub>2</sub> (please see the vial for exact amount and concentration). For long term storage, we suggest that PGA<sub>2</sub> and PGA<sub>2</sub>-d<sub>4</sub> be stored as supplied at -20°C. They should be stable for at least one year.

Both vials are supplied as solutions 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 PGA<sub>2</sub> and PGA<sub>2</sub>-d<sub>4</sub> in these solvents is approximately 100, 50, and 75 mg/ml, respectively.

PGA<sub>2</sub>-d<sub>4</sub> contains four deuterium atoms at the 3, 3', 4, and 4' positions. It is intended for use as an internal standard for the quantification of PGA<sub>2</sub> by GC- or LC-mass spectrometry. The accuracy of the sample weight in the PGA<sub>2</sub>-d<sub>4</sub> vial is between 5% over and 2% under the weight indicated on the vial. For better precision we have provided a precisely weighed unlabeled PGA<sub>2</sub>, with the precise weight (2-4 mg) indicated on the vial. Using this vial the deuterated standard can be quantified by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

PGA<sub>2</sub> is a naturally occurring PG in gorgonian corals where it may function in self defense. It is generally not present in mammals. PGA<sub>2</sub> has low biological potency in most bioassays, but it does show some anti-viral/anti-tumor activity.<sup>1</sup> At a 25 µM concentration, PGA<sub>2</sub> blocks the cell cycle progression of NIH 3T3 cells at the G<sub>1</sub> and G<sub>2</sub>/M phase.<sup>2</sup> It has also been shown to act as a vasodilator with natriuretic properties.<sup>3</sup>

### References

1. Fukushima, M., Kato, T., Narumiya, S., *et al. Adv. Prostaglandin Thromboxane Leukotriene Res.* **19**, 415-418 (1989).
2. Hitomi, M., Shu, J., Strom, D., *et al. J. Biol. Chem.* **271**, 9376-9383 (1996).
3. Frolich, J.C., Sweetman, B.J., Carr, K., *et al. Prostaglandins* **10**, 185-195 (1975).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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