

# Produktinformation



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# Zuschläge

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## SZABO-SCANDIC HandelsgmbH

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# Product Information



## Prostaglandin F<sub>2a</sub>

Item No. 16010

CAS Registry No.:	551-11-1	
Formal Name:	9α,11α,15S-trihydroxy-prosta-5Z,13E-	ОН
	dien-1-oic acid	
Synonyms:	Dinoprost, PGF <sub>20</sub>	СООН
MF:	C <sub>20</sub> H <sub>34</sub> O <sub>5</sub>	
FW:	354.5	
Purity:	≥98%	HO • · · · ·
Stability:	≥2 years at -20°C	OH
Supplied as:	A crystalline solid	

#### Laboratory Procedures

For long term storage, we suggest that Prostaglandin  $F_{2\alpha}$  (PGF<sub>2\alpha</sub>) be stored as supplied at -20°C. It should be stable for at least two years.

 $PGF_{2\alpha}$  is supplied as a crystalline solid. A stock solution may be made by dissolving the  $PGF_{2\alpha}$  in an organic solvent purged with an inert gas.  $PGF_{2\alpha}$  is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of  $PGF_{2\alpha}$  in these solvents is approximately 100 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. Organic solvent-free aqueous solutions of PGF<sub>20</sub> can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of PGF<sub>20</sub> in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

 $PGF_{2\alpha}$  is a widely distributed PG occurring in many species.<sup>1-3</sup> It causes contraction of vascular, bronchial, intestinal, and myometrial smooth muscle, and also exhibits potent luteolytic activity.<sup>1</sup> PGF<sub>2α</sub> exhibits its receptor mediated physiological activity at 50-100 nM.<sup>1</sup> Maximal ovine myometrial contraction can be achieved at 125 nM PGF<sub>2 $\alpha$ </sub> in vitro.<sup>4</sup>

#### References

- 1. Samuelsson, B., Goldyne, M., Granström, E., et al. Prostaglandins and Thromboxanes. Ann. Rev. Biochem. 47, 997-1029 (1978).
- Speroff, L. and Ramwell, P.W. Prostaglandins in reproductive physiology. Am. J. Obstet. Gynecol. 107, 1111-1130 (1970).
- Watanabe, K., Iguchi, Y., Iguchi, S., et al. Stereospecific conversion of prostaglandin D<sub>2</sub> to (5Z,13E)-(15S)-9α,-3. 11 $\beta$ ,15-trihydroxyprosta-5,13-dien-1-oic acid (9 $\alpha$ ,11 $\beta$ -prostaglandin F<sub>2</sub>) and of prostaglandin H<sub>2</sub> to prostaglandin F<sub>20</sub> by bovine lung prostaglandin F synthase. Proc. Natl. Acad. Sci. USA 83, 1583-1587 (1986).
- Crankshaw, D.J. and Gaspar, V. Pharmacological characterization in vitro of prostanoid receptors in the myometrium of nonpregnant ewes. J. Reprod. Fertil. 103, 55-61 (1995).

**Related Products** For a list of related products please visit: www.caymanchem.com/catalog/16010

#### WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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