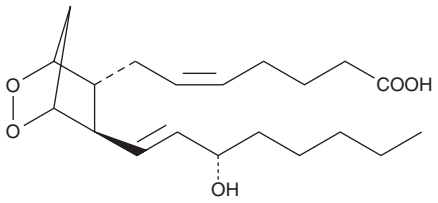
PRODUCT INFORMATION

Prostaglandin H_2

Item No. 17020

CAS Registry No.:	42935-17-1
Formal Name:	9α,11α-epidioxy-15S-hydroxy-prosta-5Z,13E-dien-1-oic acid
Synonym:	PGH_2
MF:	$C_{20}H_{32}O_5$
FW:	352.5
Purity:	≥95%
Supplied as:	A solution in acetone
Storage:	-80°C
Stability:	≥6 months



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

Laboratory Procedures

Prostaglandin H_2 (PGH_2) is a very unstable compound and therefore, stock solutions should be kept on ice, at all times, while performing experiments in the lab. PGH_2 is supplied as a solution in acetone. To change the solvent, first place the vial of PGH_2 on ice. Next, evaporate the acetone under a gentle stream of nitrogen and immediately add the solvent of choice. PGH_2 is soluble in the organic solvent ethanol at a concentration of approximately 100 mg/ml.

PGH_2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the acetonic solution of PGH_2 should be diluted with the aqueous buffer of choice. The solubility of PGH_2 in PBS (pH 7.2) is approximately 2 mg/ml. Store aqueous solutions of PGH_2 on ice and use immediately as the half-life of PGH_2 in aqueous solutions is approximately 10 minutes.

Description

PGH_2 was first isolated from incubations of arachidonic acid with ovine seminal vesicle microsomes, and was described as a potent vasoconstrictor.[1] PGH_2 is the precursor for all 2-series PGs and thromboxanes (TXs), and is a TP receptor agonist which irreversibly aggregates human platelets at 50-100 ng/ml.[2]

References

1. Hamberg, M., Svensson, J., Wakabayashi, T., *et al.* Isolation and structure of two prostaglandin endoperoxides that cause platelet aggregation. *Proc. Natl. Acad. Sci. USA* **71(2)**, 345-349 (1974).
2. Samuelsson, B., Goldyne, M., Granström, E., *et al.* Prostaglandins and thromboxanes. *Annu. Rev. Biochem.* **47**, 997-1029 (1978).

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