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ProductInformation

Prostaglandin H_1

Product Number **P 6492**
Storage Temperature –70 °C

CAS# 52589-22-7
Synonym: PGH_1

Product Description
Formula: $C_{20}H_{34}O_5$
Formula weight: 354.5

Prostaglandins are a family of fatty acid derivatives possessing a variety of potent biological activities, which are hormonal or regulatory in nature.[1] Prostaglandin H_1 (PGH_1) is the precursor to all 1-series prostaglandins and thromboxanes, and is a suicide inhibitor of platelet thromboxane synthase, possessing a K_i of 28 mM.[2] PGH_1 also acts on the aryl hydrocarbon receptor (AhR) by stimulating AhR transformation and DNA binding *in vitro*. It also induces AhR-dependent reporter gene expression in mouse hepatoma cells in culture.[3]

Reagent
Prostaglandin H_1 is supplied in an acetone solution.

Precautions and Disclaimer
This product is for laboratory research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Solutions may be prepared in DMSO, ethanol, or aqueous buffer (PBS) by evaporating the acetone using a stream of nitrogen with the product cooled on ice. The solvent of choice should be added immediately. Prostaglandin H_1 is soluble in DMSO and ethanol up to 100 mg/ml and in PBS at more than 2 mg/ml. Aqueous solutions of PGH_1 are stable for no more than 10 minutes and should be prepared immediately prior to use.

Storage/Stability
Store at –70 °C. The product as supplied is stable at least two years when stored properly. Solutions in DMSO or ethanol are stable for up to 6 months when stored at –70 °C.

References
1. Biochemistry, Second Ed., Lehninger, A.L., ed., Worth Publishers, (New York, NY: 1978) p. 300.
2. Jones, D.A. and Fitzpatrick, F.A., Suicide inactivation of thromboxane A2 synthase. Characteristics of mechanism-based inactivation with isolated enzyme and intact platelets. J. Biol. Chem., **265**, 20166-20171 (1990).
3. Seidel, S.D., et al., Activation of the Ah receptor signaling pathway by prostaglandins. J. Biochem. Mol. Toxicol., **15**, 187-196 (2001).

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