

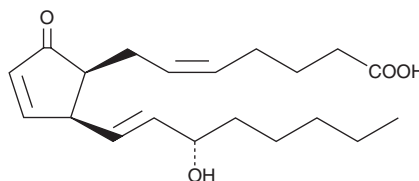
PRODUCT INFORMATION



8-iso Prostaglandin A₂

Item No. 10235

CAS Registry No.: 474391-66-7
Formal Name: (8β)-15S-hydroxy-9-oxo-prosta-5Z,10,13E-trien-1-oic acid
Synonyms: A₂ Isoprostane, 15-A_{2t}-IsoP, 15-A_{2t}-Isoprostane, 8-*epi* PGA₂, 8-*iso* PGA₂
MF: C₂₀H₃₀O₄
FW: 334.5
Purity: ≥98%
UV/Vis.: λ_{max}: 217 nm
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

8-*iso* Prostaglandin A₂ (8-*iso* PGA₂) 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 8-*iso* PGA₂ in these solvents is approximately 100, 50, and 75 mg/ml, respectively.

8-*iso* PGA₂ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the 8-*iso* PGA₂ solution of methyl acetate should be diluted with the aqueous buffer of choice. The solubility of 8-*iso* PGA₂ in PBS (pH 7.2) is approximately 2.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

8-*iso* PGA₂ is an isoprostane. It is produced by the non-enzymatic oxidation of arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607).^{1,2} 8-*iso* PGA₂ (100 μM) induces calcium influx in HEK293 cells expressing human transient receptor potential ankyrin 1 (TRPA1) and isolated mouse trigeminal neurons.³ It potentiates glutamate-induced cytotoxicity and decreases glutathione (GSH) levels in HT22 hippocampal cells when used at concentrations of 1 and 30 μM, respectively.⁴ 8-*iso* PGA₂ (10 μM) inhibits VEGF-induced migration and tube formation of human coronary artery endothelial cells, an effect that can be reversed by the TP receptor antagonist SQ 29,548 (Item No. 19025).⁵

References

1. Chen, Y., Morrow, J.D., and Roberts, L.J., II *J. Biol. Chem.* **274**(16), 10863-10868 (1999).
2. Chen, Y., Zackert, W.E., Robers, L.J., II, *et al. Biochim. Biophys. Acta* **1436**(3), 550-556 (1999).
3. Taylor-Clark, T.E., Undem, B.J., MacGlashan, D.W., Jr., *et al. Mol. Pharmacol.* **73**(2), 274-281 (2008).
4. Musiek, E.S., Breeding, R.S., Milne, G.L., *et al. J. Neurochem.* **97**, 1301-1313 (2006).
5. Benndorf, R.A., Schwedhelm, E., Gnann, A., *et al. Circ. Res.* **103**(9), 1037-1046 (2008).

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.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM