

Product Information



Prostaglandin Metabolite HPLC Mixture

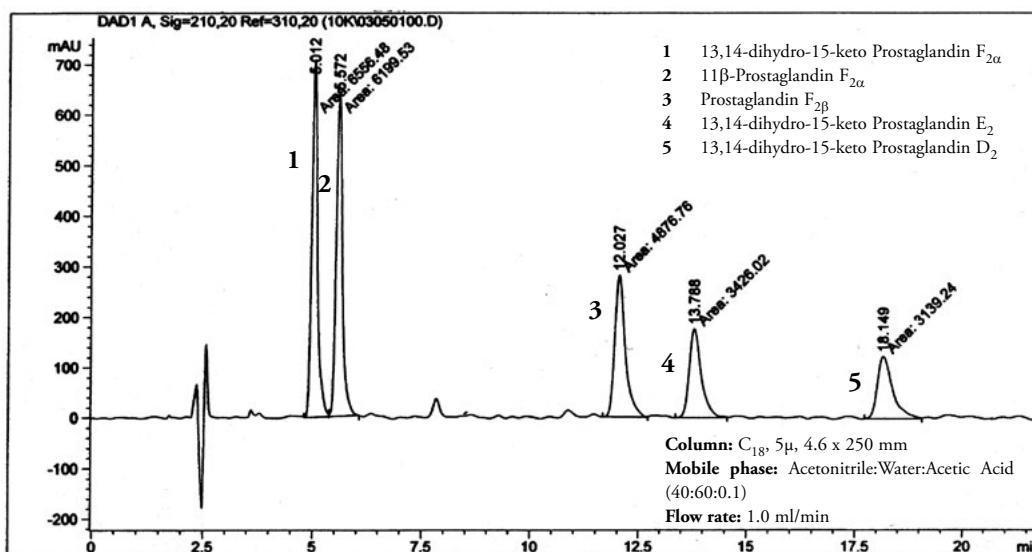
Item No. 10005

Synonym: PG Metabolite HPLC Mixture
Purity: ≥98% for each compound
Stability: ≥6 months at -20°C
Supplied as: A solution in methyl acetate (100 µg of each compound)

Laboratory Procedures

The Prostaglandin Metabolite HPLC Mixture (PG metabolite HPLC mixture) is supplied as a solution in methyl acetate. We suggest that they be stored as supplied at -20°C. It should be stable for at least six months.

This HPLC mixture contains the primary metabolites of five commonly encountered cyclooxygenase products. In primates, the lung is an active site of PG inactivation *via* 15-hydroxy PG dehydrogenase (15-hydroxy PGDH).¹ E and F-series PGs are good substrates for 15-hydroxy PGDH, which oxidizes the C-15 hydroxyl group to give the corresponding 15-keto compounds.² This oxidation is followed rapidly by Δ^{13} -reductase removal of the 13,14-double bond, to give 13,14-dihydro-15-keto PG metabolites.³ While the primary PGs are often undetectable in plasma due to their rapid inactivation, the 13,14-dihydro-15-keto metabolites can be present at concentrations of several hundred pg/ml.⁴ In addition, 9- and 11-keto PG-reductases have been reported, especially in the case of PGD₂, which produce F-series PG metabolites with a β -hydroxyl group on the ring.⁵ These metabolites span a wide polarity range and separate well on reversed phase HPLC.



References

1. Hansen, H.S. *Prostaglandins* 12, 647-679 (1976).
2. Sun, F.F., Armour, S.B., Bockstanz, V.R., *et al. Adv. Prostaglandin Thromboxane Res.* 1, 163-169 (1976).
3. Basu, S. and Stjernschantz, J. *Prostaglandins Leukot. Essent. Fatty Acids* 57, 305-310 (1997).
4. Granström, E., Hamberg, M., Hansson, G., *et al. Prostaglandins* 19, 933-945 (1980).
5. Ellis, C.K., Smigel, M.D., Oates, J.A., *et al. J. Biol. Chem.* 254, 4152-4163 (1979).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10005

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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