

# Product Information



## Vasoactive Eicosanoid HPLC Mixture

Catalog No. 10003

**Purity:** ≥ 98% for each compound  
**Stability:** ≥ 6 months at -20°C  
**Supplied as:** A solution in methyl acetate (Please see below for specific amounts of each compound.)

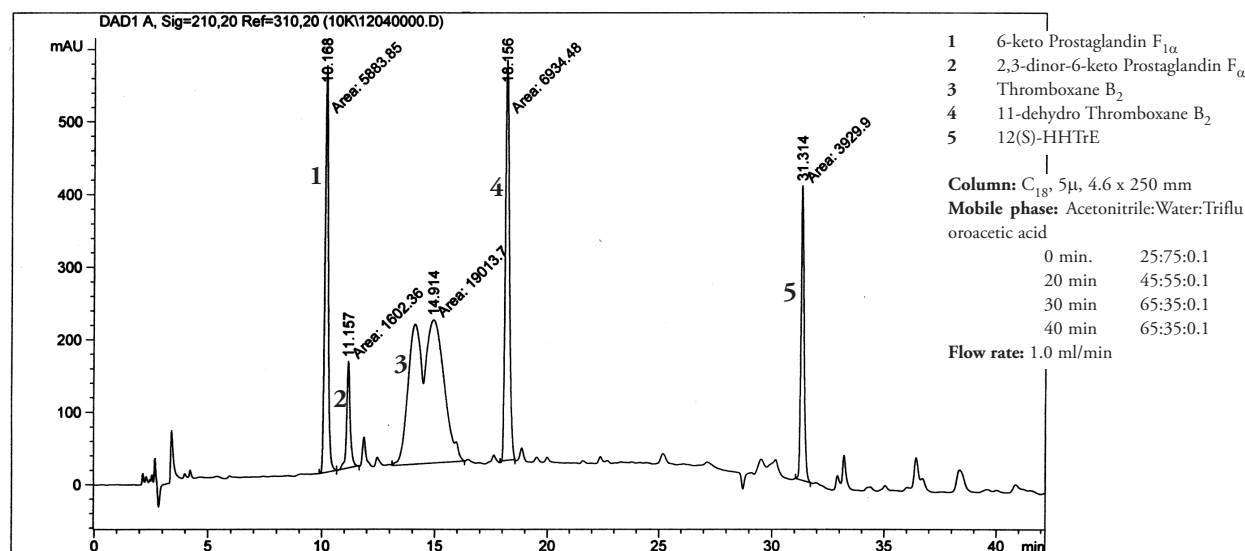
### Laboratory Procedures

These compounds are supplied as a solution in methyl acetate. We suggest that they be stored as supplied at -20°C. They should be stable for at least six months.

This mixture contains the characteristic metabolites of both Prostaglandin I<sub>2</sub> (PGI<sub>2</sub>) and Thromboxane A<sub>2</sub> (TXA<sub>2</sub>). Contents: TXB<sub>2</sub>, 11-dehydro TXB<sub>2</sub>, 6-keto PGF<sub>1α</sub>, 2,3-dinor-6-keto PGF<sub>1α</sub> (100 μg each), and 12(S)-HHTrE (5 μg). The primary platelet cyclooxygenase product is TXA<sub>2</sub>. This chemically unstable mediator is produced in μg/ml amounts in clotting whole blood, along with a comparable amount of 12(S)-HHTrE (12-HHT).<sup>1</sup> Thromboxane synthase catalyzes the production of both compounds from PGH<sub>2</sub>. TXA<sub>2</sub> degrades rapidly (t<sub>1/2</sub> = 30 sec.) to TXB<sub>2</sub>, the primary metabolite which is essentially devoid of biological activity. TXB<sub>2</sub> is further metabolized to 11-dehydro TXB<sub>2</sub>, the main urinary metabolite.

Endothelial cells produce PGI<sub>2</sub> (prostacyclin), an equally unstable vasodilator and antagonist of platelet aggregation. PGI<sub>2</sub> undergoes non-enzymatic hydrolysis yielding 6-keto PGF<sub>1α</sub>, the primary inactive prostacyclin metabolite. 2,3-dinor-6-keto PGF<sub>1α</sub> is the major urinary metabolite.<sup>2</sup>

These metabolites span a very wide polarity range and separate well on reversed phase HPLC.



### References

1. Hamberg, M., Svensson, J., and Samuelsson, B. Thromboxanes: A new group of biologically active compounds derived from prostaglandin endoperoxides. *Proc. Natl. Acad. Sci. USA* **72**, 2994-2998 (1975).
2. Rosenkranz, B., Fischer, C., Reimann, I., et al. Identification of the major metabolite of prostacyclin and 6-ketoprostaglandin F<sub>1α</sub> in man. *Biochim. Biophys. Acta* **619**, 207-213 (1980).

### Related Products

UV-active Prostaglandin HPLC Mixture - Cat. No. 10000 • Primary Eicosanoid HPLC Mixture - Cat. No. 10001 • Prostaglandin HPLC Mixture - Cat. No. 10002 • Prostaglandin Metabolite HPLC Mixture - Cat. No. 10005 • 2,3-dinor-6-keto Prostaglandin F<sub>1α</sub> - Cat. No. 15120 • 6-keto Prostaglandin F<sub>1α</sub> - Cat. No. 15210 • Prostaglandin I<sub>2</sub> (sodium salt) - Cat. No. 18220 • Thromboxane B<sub>2</sub> - Cat. No. 19030 • 11-dehydro Thromboxane B<sub>2</sub> - Cat. No. 19530 • 12(S)-HHTrE - Cat. No. 34590

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

### MATERIAL 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 Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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