# PRODUCT INFORMATION

## tetranor-PGDM lactone-d6

*Item No. 11213*

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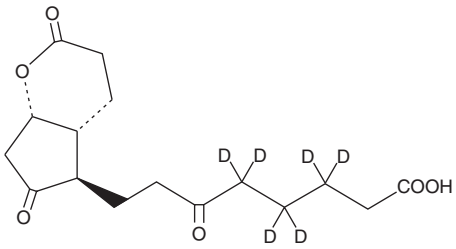
|---|---|
| **Formal Name:** | 5α-hydroxy-7,11-dioxo-2,3,4,5-tetranor-prostan-1,14-dioic acid-16,16',17,17',18,18'-$d_6$ |
| **Synonym:** | tetranor-Prostaglandin D Metabolite lactone-$d_6$ |
| **MF:** | $C_{16}H_{16}D_6O_6$ |
| **FW:** | 316.4 |
| **Chemical Purity:** | ≥90% tetranor-PGDM lactone |
| **Deuterium Incorporation:** | ≥99% deuterated forms ($d_1$-$d_6$); ≤1% $d_0$ |
| **Supplied as:** | A 1 mg/ml solution in methyl acetate |
| **Storage:** | -80°C |
| **Stability:** | ≥6 months |




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

### Laboratory Procedures

tetranor-PGDM lactone-d6 is intended for use as an internal standard for the quantification of tetranor-PGDM lactone by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

tetranor-PGDM lactone-d6 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 tetranor-PGDM lactone-d6 in these solvents is approximately 50 mg/ml.

### Description

$PGD_2$ plays a pharmacological role in allergic and asthmatic anaphylaxis, normal physiological sleep and lowering of body temperature, as well as inhibits platelet aggregation and relaxes vascular smooth muscle.[1] tetranor-PGDM is an abundant urinary metabolite of $PGD_2$ that is detectable both in human and mouse and, as such, is used as a biomarker of $PGD_2$ biosynthesis.[2] tetranor-PGDM lactone is a closed form of tetranor-PGDM. The formation of tetranor-PGDM lactone in biological samples has not been evaluated.

### References


1. Giles, H. and Leff, P. The biology and pharmacology of $PGD_2$. *Prostaglandins* **35**, 277-300 (1988).
2. Song, W.-L., Wang, M., Ricciotti, E., *et al*. Tetranor PGDM, an abundant urinary metabolite reflects biosynthesis of prostaglandin $D_2$ in mice and humans. *J. Biol. Chem.* **283(2)**, 1179-1188 (2008).





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