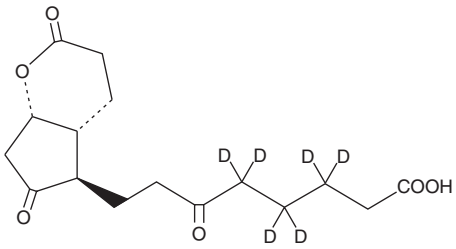
PRODUCT INFORMATION

tetranor-PGDM lactone-d6

Item No. 11213

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 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).

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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