

## Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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#### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



Prostaglandin  $J_2$ - $d_4$ 

Item No. 19345

Formal Name:	(Z)-7-((1S,5R)-5-((S,E)-3-hydroxyoct-1- en-1-yl)-4-oxocyclopent-2-en-1-yl)hept-	
	5-enoic-3,3,4,4-d <sub><math>a</math></sub> acid	
Synonym:	$PGJ_2-d_4$	
MF:	$C_{20}\dot{H}_{26}\dot{D}_{4}O_{4}$	Соон
FW:	338.5	
<b>Chemical Purity:</b>	≥98% (Prostaglandin J₂)	
Deuterium	- 2	
Incorporation:	≥99% deuterated forms (d <sub>1</sub> -d <sub>4</sub> ); ≤1% d <sub>0</sub>	ÓН
Supplied as:	A solution in methyl acetate	
Storage:	-80°C	
Stability:	≥1 year	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

#### Laboratory Procedures

Prostaglandin  $J_2$  (PGJ<sub>2</sub>)-d<sub>4</sub> is intended for use as an internal standard for the quantification of PGJ<sub>2</sub> (Item No. 18500) 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).

 $PGJ_2$ -d<sub>4</sub> 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  $PGJ_{2}-d_{4}$ in these solvents is approximately 50 mg/ml.

#### Description

PGJ<sub>2</sub> is formed from PGD<sub>2</sub> by the elimination of the C-9 hydroxyl group, a process which is accelerated by the presence of albumin.<sup>1</sup> PGJ<sub>2</sub> inhibits platelet aggregation with an IC<sub>50</sub> of about 5-10 nM.<sup>2,3</sup> PGJ<sub>2</sub> has antimitotic and antiproliferative effects on a variety of cultured normal cells and tumor cell lines.<sup>4</sup> However, this activity has been attributed to further metabolites of PGJ<sub>2</sub> and not the parent compound itself.

#### References

- 1. Toon, S., Low, L.K., Gibaldi, M., et al. The warfarin-sulfinpyrazone interaction: Stereochemical considerations. Clin. Pharmacol. Ther. 39(1), 15-24 (1986).
- 2. Bundy, G.L., Morton, D.R., Peterson, D.C., et al. Synthesis and platelet aggregation inhibiting activity of prostaglandin D analogues. J. Med. Chem. 26(6), 790-799 (1983).
- 3. Mahmud, I., Smith, D.L., Whyte, M.A., et al. On the identification and biological properties of prostaglandin J<sub>2</sub>. Prostaglandins Leukot. Med. 16(2), 131-146 (1984).
- 4. Fukushima, M. Prostaglandin  $J_2$  anti-tumor and anti-viral activities and the mechanisms involved. Eicosanoids 3(4), 189-199 (1990).

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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