

## Product Data Sheet

## Inhibitors • Screening Libraries • Proteins

## 15-Deoxy- $\Delta$ -12,14-prostaglandin J2-d<sub>4</sub>

Cat. No.:	HY-108568S	Q
CAS No.:	1542166-82-4	ОН
Molecular Formula:	$C_{20}H_{24}D_{4}O_{3}$	
Molecular Weight:	320.46	DÝD
Target:	PPAR; Endogenous Metabolite	
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor	
Storage:	Solution, -20°C, 2 years	0

BIOLOGICAL ACTIVITY			
Description	15-Deoxy-Δ-12,14-prostaglandin J2-d <sub>4</sub> is the deuterium labeled 15-Deoxy-Δ-12,14-prostaglandin J2. 15-Deoxy-Δ-12,14- prostaglandin J2 (15d-PGJ2) is a cyclopentenone prostaglandin and a metabolite of PGD2. 15-Deoxy-Δ-12,14-prostaglandin J2 is a selective PPARγ (EC50 of 2 μM) and a covalent PPARδ agonist. 15-Deoxy-Δ-12,14-prostaglandin J2 promotes efficient differentiation of C3H10T1/2 fibroblasts to adipocytes with an EC50 of 7 μM[1][2].		
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

## REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Reddy AT, et al. Identification and Molecular Characterization of Peroxisome Proliferator-Activated Receptor  $\delta$  as a Novel Target for Covalent Modification by 15-Deoxy- $\Delta$ 12,14-prostaglandin J2. CS Chem Biol. 2018 Dec 21;13(12):3269-3278.

[3]. Kliewer SA1, et al. A prostaglandin J2 metabolite binds peroxisome proliferator-activated receptor gamma and promotes adipocyte differentiation. Cell. 1995 Dec 1;83(5):813-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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