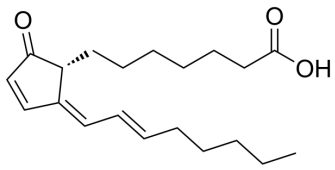
15-Deoxy-Δ12,14-prostaglandin A1

Cat. No.:	HY-118101
CAS No.:	573951-20-9
Molecular Formula:	$C_{20}H_{30}O_3$
Molecular Weight:	318.45
Target:	Apoptosis; NF-κB
Pathway:	Apoptosis; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

15-Deoxy-Δ12,14-prostaglandin A1 is a deoxyanalog of prostaglandins that inhibits NF-κB signaling and induces apoptosis. 15-Deoxy-Δ12,14-prostaglandin A1 inhibits TNF-α-induced upregulation of inflammatory endothelial cell adhesion molecule (CAM) and avoids monocyte arrest[1].

In Vitro

15-Deoxy-Δ12,14-prostaglandin A1 (25, 50 μM; 2 h) inhibits TNF-α-induced IκB-α kinase (IKK) activation, IκB-α degradation, and NF-κB/p65 translocation while promoting AP -1/c-Jun phosphorylation [1].
15-Deoxy-Δ12,14-prostaglandin A1 (25 μM; 2 h) enhances TNF-α-induced cell death in HAEC and HUVEC [1].
15-Deoxy-Δ12,14-prostaglandin A1 (10 μM; 2 h) inhibits TNF-α-induced monocyte arrest [1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	HAEC and HUVEC
Concentration:	6.5, 12.5, 25 μM
Incubation Time:	2 h
Result:	Markedly enhanced cell death induced by TNF-α.

Western Blot Analysis[1]

Cell Line:	HAEC and HUVEC
Concentration:	25 and 50 μM
Incubation Time:	2 h
Result:	Prevented the TNF-α induced inhibition of IKK, the IκB-α degradation at 25 or 50 μM but not at 6.25 or 12.5 μM.

REFERENCES

[1]. Zernecke A, et al. Suppression of endothelial adhesion molecule up-regulation with cyclopentenone prostaglandins is dissociated from IkappaB-alpha kinase

inhibition and cell death induction. FASEB J. 2003 Jun;17(9):1099-101.

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