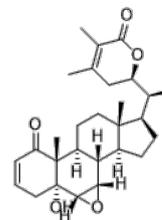


Product Name : Withanolide B
Cat. No. : PC-26392
CAS No. : 56973-41-2
Molecular Formula : C₂₈H₃₈O₅
Molecular Weight : 454.61
Target : Akt
Solubility : 10 mM in DMSO



Biological Activity

Withanolide B is an active component of *W. somnifera* Dunal, effectively promotes human bone mesenchymal stem cells (hBMSCs) osteogenic differentiation via ERK1/2 and Wnt/ β -catenin signaling pathways, is also a potent AKT modulator. Withanolide B shows binding affinity toward all AKT isoforms with stable MD trajectories and energetically favorable MM-PBSA profiles, particularly for AKT2.

Withanolide B significantly reduced A549 cell viability (IC₅₀ = 5 μ M), induced ROS accumulation, mitochondrial depolarization, chromatin condensation, apoptosis, and S-phase cell cycle arrest.

References

Chaurasiya ND, et al. *Phytochem Anal.* 2008 Mar-Apr;19(2):148-54.

Kuang Z, et al. *Int Immunopharmacol.* 2020 Nov;88:106960.

Fatma M, et al. *J Ethnopharmacol.* 2026 Mar 10;364:121501.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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