**Data Sheet**

**Product Name:** Dimethylcurcumin  
**Cat. No.:** CS-0533  
**CAS No.:** 52328-98-0  
**Molecular Formula:** \( \text{C}_{23}\text{H}_{24}\text{O}_{6} \)  
**Molecular Weight:** 396.43  
**Target:** Androgen Receptor  
**Pathway:** Others  
**Solubility:** DMSO: ≥ 50 mg/mL (126.13 mM); H2O: < 0.1 mg/mL (insoluble)

**BIOLOGICAL ACTIVITY:**

Dimethylcurcumin (ASC-J9) is an androgen receptor degradation enhancer that effectively suppresses castration resistant prostate cancer cell proliferation and invasion.

**In Vitro:** Dimethylcurcumin (ASC-J9) is able to degrade fAR and AR3 in a dose-dependent manner in various human PCa cells. Dimethylcurcumin (ASC-J9) can also effectively suppress AR-targeted genes in CWR22Rv1-fARKD cells. Dimethylcurcumin (ASC-J9) (5 or 10 μM) significantly suppresses the DHT-induced cell growth in all three PCa cell lines. Dimethylcurcumin (ASC-J9) suppresses AR-targeted genes and cell growth by degradation of fAR and ectopic AR3 in C81 and C4-2 cells[1]. Dimethylcurcumin (ASC-J9) selectively promotes AR degradation by disrupting the interaction between AR and AR coregulators. ASC-J9 reduces the AR aggregated AR-112Q in cells. Dimethylcurcumin (ASC-J9) suppresses the aggregation of AR-112Q in SBMA PC12/AR-112Q cells[2].

**In Vivo:** Dimethylcurcumin (ASC-J9) (75 mg/kg, i.p.) degrades both fAR and AR3 in the xenografted tumors in vivo, and SC-J9-treated tumors has significantly decreased Ki67-positive cells[1]. Dimethylcurcumin (ASC-J9) (50 mg/kg every 48 h, i.p.) substantially ameliorates the SBMA symptoms in AR-97Q mice, and ameliorates neuromuscular pathological findings. The Dimethylcurcumin (ASC-J9)-treated SBMA mice have relatively normal serum testosterone concentrations[2]. ASC-J9-treated mice show significantly smaller prostate tumor sizes when compared with those receiving classic ADT/castration with little serum androgen[3].

**PROTOCOL (Extracted from published papers and Only for reference)**

**Cell Assay:** [2] For the cell survival assay, the PC12/AR-112Q and PC12/AR-10Q cells are cultured as described previously and incubated cells in the presence of 10 μg/mL doxycycline for 24 h. Then the cells are treated with vehicle, 5 μM Dimethylcurcumin (ASC-J9) or 10 μM Dimethylcurcumin (ASC-J9), along with 1 nM DHT, and determined cell viability using Trypan blue staining at specific time intervals.

**Animal Administration:** [1] CWR22Rv1 cells (1×10^6 cells per site) are injected into both anterior prostates of castrated nude mouse after 2 weeks of implantation. The mice are randomly divided into two groups (four mice/eight tumors each group) and either receives 75 mg/kg Dimethylcurcumin (ASC-J9) intraperitoneal injection or vehicle control every other day. After 4 weeks of treatment, all mice are killed to examine the tumor growth. Body weights and mice activity are measured weekly.

**References:**


[3]. Lee SO, et al. New therapy targeting differential androgen receptor signaling in prostate cancer stem/progenitor vs non-stem/progenitor cells. J Mol Cell...