



# **Data Sheet**

**Product Name:** Oxyphenisatin acetate

Cat. No.: CS-6519
CAS No.: 115-33-3
Molecular Formula: C24H19NO5
Molecular Weight: 401.41
Target: Autophagy

Solubility: DMSO: 100 mg/mL (249.12 mM; Need ultrasonic)

Autophagy

## **BIOLOGICAL ACTIVITY:**

Pathway:

Oxyphenisatin acetate, the pro-drug of oxyphenisatin, is used to be a laxative. **In Vitro:** Oxyphenisatin acetate inhibits the growth of the breast cancer cell lines MCF7, T47D, HS578T, and MDA-MB-468. In the estrogen receptor (ER) positive MCF7 and T47D cells, oxyphenisatin acetate induces TNF $\alpha$  expression and TNFR1 degradation, indicating autocrine receptor-mediated apoptosis in these lines. Ten micromoles per liter Oxyphenisatin acetate treatment results in autophagy and mitochondrial dysfunction<sup>[1]</sup>. **In Vivo:** Oxyphenisatin acetate (300 mg/kg, i.p.) delivers intraperitoneally inhibited tumor growth, accompanied by phosphorylation of eIF2 $\alpha$  and degradation of TNFR1 in an MCF7 xenograft model<sup>[1]</sup>.

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

Animal Administration: Oxyphenisatin acetatephenisatin acetate is dissolved in 100% DMSO. [1] Assessment in several other tumor models demonstrates tolerability with oxyphenisatin acetate at 300 mg/kg given once daily or 200 mg/kg given twice daily. For the MCF-7 study treatments are administered on an exact body weight basis using dose volumes of 1-2 mL/kg body weight. The vehicle control receives 100% DMSO. The treated group receives 300 mg/kg oxyphenisatin acetate once daily for a total of 10 days, followed by a 3 day rest and an additional 6 days of dosing. The dose solutions are prepared in 100% DMSO, aliquoted and stored frozen until used. The mice are monitored for a total of 52 days with treatment initiation occurring on day 27 posttumor implantation [1].

#### References:

[1]. Morrison BL, et al. Oxyphenisatin acetate (NSC 59687) triggers a cell starvation response leading to autophagy, mitochondrial dysfunction, and autocrine  $TNF\alpha$ -mediated apoptosis. Cancer Med. 2013 Oct;2(5):687-700.

#### **CAIndexNames**:

2H-Indol-2-one, 3,3-bis[4-(acetyloxy)phenyl]-1,3-dihydro-

### **SMILES:**

 ${\sf O=C1NC2=C(C=CC=C2)C1(C3=CC=C(OC(C)=O)C=C3)C4=CC=C(OC(C)=O)C=C4}$ 

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

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