

Product data sheet



MedKoo Cat#: 461197 Name: Oxyphenisatine CAS: 125-13-3 Chemical Formula: C ₂₀ H ₁₅ NO ₃ Exact Mass: 317.1052 Molecular Weight: 317.344		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Oxyphenisatine is a laxative. Long-term use is associated with liver damage.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.15 mL	15.76 mL	31.51 mL
5 mM	0.63 mL	3.15 mL	6.30 mL
10 mM	0.32 mL	1.58 mL	3.15 mL
50 mM	0.06 mL	0.32 mL	0.63 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

Morrison BL, Mullendore ME, Stockwin LH, Borgel S, Hollingshead MG, Newton DL. Oxyphenisatin acetate (NSC 59687) triggers a cell starvation response leading to autophagy, mitochondrial dysfunction, and autocrine TNF α -mediated apoptosis. Cancer Med. 2013 Oct;2(5):687-700. doi: 10.1002/cam4.107. Epub 2013 Jul 23. PMID: 24403234; PMCID: PMC3892800.

In vivo study

Morrison BL, Mullendore ME, Stockwin LH, Borgel S, Hollingshead MG, Newton DL. Oxyphenisatin acetate (NSC 59687) triggers a cell starvation response leading to autophagy, mitochondrial dysfunction, and autocrine TNF α -mediated apoptosis. Cancer Med. 2013 Oct;2(5):687-700. doi: 10.1002/cam4.107. Epub 2013 Jul 23. PMID: 24403234; PMCID: PMC3892800.

7. Bioactivity

Biological target:

Oxyphenisatine (Oxyphenisatin) is a laxative.

In vitro activity

Results confirm that OXY (oxyphenisatin) inhibits the growth of the breast cancer cell lines MCF7, T47D, HS578T, and MDA-MB-468. Further examination confirmed that OXY treatment was associated with autophagy, mitochondrial dysfunction, and ROS generation. Additionally, treatment was associated with activation of both intrinsic and extrinsic apoptotic pathways. In the estrogen

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receptor (ER) positive MCF7 and T47D cells, OXY induced TNF α expression and TNFR1 degradation, indicating autocrine receptor-mediated apoptosis in these lines.

Reference: Cancer Med. 2013 Oct;2(5):687-700. <https://pubmed.ncbi.nlm.nih.gov/24403234/>

In vivo activity

Next, in order to reaffirm the potential of OXY (oxyphenisatin)-like molecules as clinical candidates, the agent was assessed for in vivo antitumor activity in an MCF7 xenograft animal model. Toxicity studies demonstrated that mice tolerated IP administration of OXY at 300 mg/kg once daily or 200 mg/kg twice daily. Administration of OXY at 300 mg/kg IP once daily for 10 days resulted in significantly smaller tumors from day 33 to day 52 ($P < 0.05$) (Fig. 4A). Consistent with in vitro data, tumors did not grow during the treatment period.

Reference: Cancer Med. 2013 Oct;2(5):687-700. <https://pubmed.ncbi.nlm.nih.gov/24403234/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.