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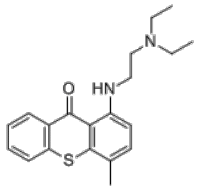
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	Lucanthone
Cat. No.	:	PC-60602
CAS No.	:	479-50-5
Molecular Formula	:	$C_{20}H_{24}N_2OS$
Molecular Weight	:	340.485
Target	:	Autophagy
Solubility	:	10 mM in DMSO



Biological Activity

Lucanthone is an ionizing radiation enhancer and apurinic/apyrimidinic endonuclease 1 (**APE1**) inhibitor with IC50 of 5 uM for inhibition of APE1 incision of depurinated plasmid DNA, also may act as an inhibitor of protein palmitoyl thioesterase 1 (PPT1).
Lucanthone slows GBM by inhibiting autophagic flux through lysosome targeting and decreases the number of Olig2+ glioma stem-like cells (GSC) in vitro and in vivo.
Lucanthone efficiently abates stemness in patient-derived GSC and reduces tumor microtube formation in GSC, an emerging hallmark of treatment resistance in GBM.
Lucanthone is an orally available thioxanthone-based DNA intercalator and inhibitor of the DNA repair enzyme apurinic-apyrimidinic endonuclease 1 (APE1) potential antineoplastic activity, also inhibits **autophagy**; induces lysosomal membrane permeabilization, and possesses significantly more potent activity in breast cancer models compared with chloroquine; induces cathepsin D-mediated apoptosis.

References

Carew JS, et al. ***J Biol Chem.*** 2011 Feb 25;286(8):6602-13.

Carew JS, et al. ***Autophagy.*** 2017 Apr 3;13(4):765-766.

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

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