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产品名称: 硫坎酮

产品别名: Lucanthone ; 硫蒽酮

生物活性:					
Description	Lucanthone is an endonuclease inhibitor of Apurinic endonuclease-1 (APE-1).				
IC <sub>50</sub> & Target	APE-1[1]				
In Vitro	Lucanthone is a novel inhibitor of autophagy that induces cathepsin D-mediated apoptosis. To investigate the anticancer activity of Lucanthone, cell viability is measured by MTT assay. Lucanthone reduces cell viability to a similar extent in a panel of seven breast cancer cell lines. In addition, a direct comparison reveals that Lucanthone is significantly more potent than Chloroquine (CQ) at reducing breast cancer cell viability with a mean IC50 of 7.2 μM versus 66 μM for CQ. Measurement of cell viability in two representative cell lines (MDA-MB-231 and BT-20) by ATPlite assay and trypan blue exclusion reveals comparable results[2].				
Solvent&Solubility	In Vitro: DMSO : 25 mg/mL (73.43 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	2.9370 mL	14.6852 mL	29.3703 mL
		5 mM	0.5874 mL	2.9370 mL	5.8741 mL
	10 mM	0.2937 mL	1.4685 mL	2.9370 mL	
*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。  储备液的保存方式和期限 -80℃, 6 months; -20℃, 1 month。 -80℃ 储存时，请在 6 个月内使用， -20℃ 储存时，请在 1 个月内使用。					
References	[1]. Chowdhury SM, et al. Graphene nanoribbons as a drug delivery agent for lucanthone mediated therapy of glioblastoma multiforme. Nanomedicine. 2015 Jan;11(1):109-18.  [2]. Carew JS, et al. Lucanthone is a novel inhibitor of autophagy that induces cathepsin D-mediated apoptosis. J Biol Chem. 2011 Feb 25;286(8):6602-13.				
实验参考:					
Cell Assay	Cell viability is assessed by MTT assay. Cells are seeded into 96-well microculture plates at 10,000 cells per well and allowed to attach for 24 h. Cells are then treated with Lucanthone (0, 0.5, 1, 5, 10, 20 and 40 μM), Chloroquine, Vorinostat, or combinations for 72 h. Following drug treatment, MTT is added and cell viability is quantified using a BioTek microplate reader. Effects on cell viability are also determined by measuring ATP levels using the ATPlite assay system and by trypan blue exclusion. Pro-apoptotic effects following in vitro drug exposure are quantified by propidium iodide (PI) staining and fluoescence-activated cell sorting (FACS) analysis of sub-G <sub>0</sub> /G <sub>1</sub> DNA content[2].				
References	[1]. Chowdhury SM, et al. Graphene nanoribbons as a drug delivery agent for lucanthone mediated therapy of glioblastoma multiforme. Nanomedicine. 2015 Jan;11(1):109-18.  [2]. Carew JS, et al. Lucanthone is a novel inhibitor of autophagy that induces cathepsin D-mediated apoptosis. J Biol Chem. 2011 Feb 25;286(8):6602-13.				