Product Data Sheet

Product Name: MitoTam iodide, hydriodide
Cat. No.: GC36620

Chemical Properties

Cas. No.	1634624-74-0		
SMILES	CN(CCOC1=CC=C(/C(C2=CC=CC=C2)=C(C3=CC=CC=C3)/CCCCCCCCCC[P+](C4=CC=CC=C4)(C5=CC=CC=C5)C6=CC=CC=C6)C=C1)C.[H]I.[I-]		
Formula	$C_{52}H_{60}I_2NOP$	M.Wt	999.82
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	MitoTam iodide, hydriodide		

Background

MitoTam iodide, hydriodide is a tamoxifen derivative[1], an electron transport chain (ETC) inhibitor, spreduces mitochondrial membrane potential in senescent cells and affects mitochondrial morphology[2].MitoTam iodide, hydriodide is an effective anticancer agent, suppresses respiratory complexes (CI-respiration) and disrupts respiratory supercomplexes (SCs) formation in breast cancer cells[1][2]. MitoTam iodide, hydriodide causes apoptosis[2].

MitoTam (0.5 μM-56 μM; 24 hours) kills breast cancer cell Lines and nonmalignant cells with an IC50 range from 0.65 μM to 55.9 μM[1].MitoTam (2.5 μM; 2-24 hours) results in stronger activation of the apoptotic pathway in MCF7 Her2high cells compared with mock MCF7 cells[1].MitoTam (0.05 μM-1 μM; 3 days) causes a concentration-dependent induction of apoptosis in breast cancer cells, while there was no effect for non-malignant breast epithelial cells[2]. Cell Viability Assay[1] Cell Line: Breast Cancer Cell Lines: BT474, MCF7, MCF7 Her2high, MCF7 Her2low, MDA-MB-231, MDA-MB-436, MDA-MB-453, SK-BR-3, T47D; NeuTL cells; Nonmalignant Cells: A014578, H9c2 cells

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

MitoTam (intraperitoneal injection; 2 μg/g; once a week; 4 weeks) decreases β-gal staining of lungs from MitoTam-treated mice, accompaning by a inhibition in the expression of senescence markers p16Ink4a, p21waf1 and PAI comparing control mice [2].MitoTam (intraperitoneal injection; 0.54 μmol/mouse; twice a week; 2 weeks) inhibits growth of syngeneic tumors by 80%[1].MitoTam (intraperitoneal injection; 0.25 μmol/mouse; twice a week; 2 weeks) slows down the growth of MCF7 mock tumors and stops tumor progression after two doses; suppresses Her2high carcinomas decreased threefold from the original size with complete disappearance[1]. Animal Model: 18-month-old or 2-month-old FVB/N mice[1]

[1]. Rohlenova K, et al. Selective Disruption of Respiratory Supercomplexes as a New Strategy to Suppress Her2highBreast Cancer. Antioxid Redox Signal. 2017 Jan 10;26(2):84-103. [2]. Hubackova S, et al. Selective elimination of senescent cells by mitochondrial targeting is regulated by ANT2. Cell Death Differ. 2019 Jan;26(2):276-290.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA