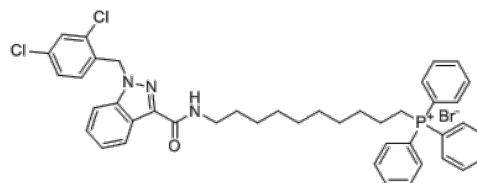


Product Name : Mito-LND
Cat. No. : PC-21018
CAS No. : 2361564-49-8
Molecular Formula : C₄₃H₄₅BrCl₂N₃OP
Molecular Weight : 801.63
Target : Other Targets
Solubility : 10 mM in DMSO



CAS: 2361564-49-8

Biological Activity

Mito-LND (Mito-Ionidamine) is a tumor-selective inhibitor of oxidative phosphorylation with IC₅₀ of 1.2 and 2.4 μM for mitochondrial complexes I and II, respectively, impacts the activity of mitochondrial complexes, ROS generation and peroxiredoxin oxidation.

Mito-LND shows 100-fold more potent than Ionidamine (LND).

Mito-LND inhibits mitochondrial bioenergetics in lung cancer cells and mitigates lung cancer cell viability, growth, progression, and metastasis of lung cancer xenografts in mice.

Mito-LND blocks lung tumor development and brain metastasis by inhibiting mitochondrial bioenergetics, stimulating the formation of reactive oxygen species, oxidizing mitochondrial peroxiredoxin, inactivating AKT/mTOR/p70S6K signaling, and inducing autophagic cell death in lung cancer cells.

Mito-LND is selective for cancer cells and tumor tissue, does not induce autophagy in normal lung and brain tissue or normal lung cell lines.

References

Gang Cheng, et al. Nat Commun. 2019 May 17;10(1):2205.

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

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