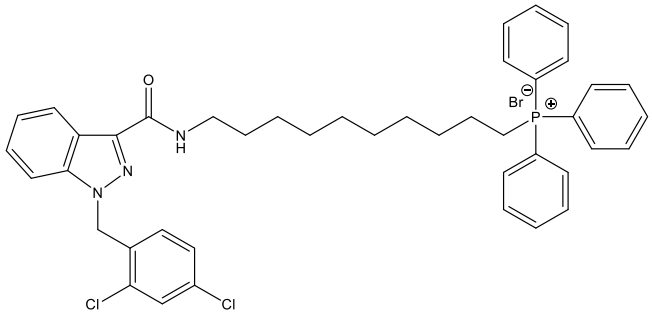
Catalog # 10-5492

Mito-lonidamine

CAS# 2361564-49-8

(10-(1,(2,4-Dichlorobenzyl)-1H-indazole-3-carboxamido)decyl)triphenylphosphonium bromide

Lot # S107036



Lonidamine is an antiglycolytic drug with limited efficacy.[1,2] Mito-lonidamine is lonidamine conjugated to a triphenylphosphonium moiety *via* a decyl-linker which is an effective mitochondria-targeting group.[3] Mito-lonidamine was shown to be100-fold more potent than lonidamine. It is a tumor-selective inhibitor of oxidative phosphorylation inhibiting mitochondrial bioenergetics in lung cancer cells and suppressing lung cancer cell viability, growth, progression and metastasis of lung cancer xenografts in mice.[3]

1) Paggi *et al*. (1998), *Effect of lonidamine on human malignant gliomas: biochemical studies*; J. Neurooncol., **6** 203
2) Guo *et al*. (2016), *Inhibition of Mitochondrial Complex II by the Anticancer Agent Lonidamine*; J. Biol. Chem., **291** 42
3) Cheng *et al*. (2019), *Targeting lonidamine to mitochondria mitigates lung tumorigenesis and brain metastasis*; Nat. Commun.., **10** 2205

PHYSICAL DATA

Molecular Weight:	801.63
Molecular Formula:	$C_{43}H_{45}BrCl_2N_3OP$
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (30 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase.
	Solutions in DMSO may be stored at -20°C for up to 3 months.

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