

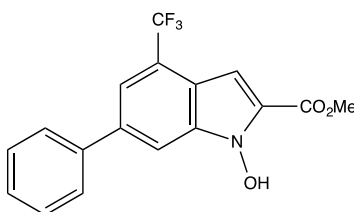
Catalog # 10-4555

NHI-2

CAS# 1269802-97-2

Methyl 1-Hydroxy-6-phenyl-4-trifluoromethyl-1H-indole-2-carboxylate

Lot # FBA7070



NHI-2 is a selective inhibitor of Lactate Dehydrogenase A (LDHA) – IC_{50} *in vitro* = 14.7 μ M (NADH), 10.5 μ M (Pyruvate).¹ NHI-2 has also shown cellular growth inhibitory effects against pancreatic cancer cells (PANC-1 cells IC_{50} = 22.2 μ M normoxic and 4.0 μ M hypoxic; LPC006 cells IC_{50} = 17.8 μ M normoxic and 1.1 μ M hypoxic) with increased efficacy in a cancer cells hypoxic environment.² LDHA is a key enzyme involved in the Warburg effect and a cancer cells ability to survive in a hypoxic environment.

- 1) Granchi et al., (2013), *Assessing the differential action on cancer cells of LDH-A inhibitors based on the N-hydroxyindole-2-carboxylate (NHI) and malonic (Mal) scaffolds*; Org.Biomol.Chem. **11** 6588
- 2) Maftouh et al. (2014), *Synergistic interaction of novel lactate dehydrogenase inhibitors with gemcitabine against pancreatic cancer cells in hypoxia*; Br.J.Cancer **110** 172
- 3) Granchi et al., (2011), *Discovery of N-Hydroxyindole-based Inhibitors of Human Lactate Dehydrogenase Isoform A (LDH-A) as Starvation Agents against Cancer Cells*; J.Med.Chem. **54** 1599
- 4) Allison, et al., (2014), *Identification of LDH-A as a therapeutic target for cancer cell killing via (i) p53/NAD(H)-dependent and (ii) p-53-independent pathways*; Oncogenesis **3** e102

PHYSICAL DATA

Molecular Weight:	335.28
Molecular Formula:	C ₁₇ H ₁₂ F ₃ NO ₃
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	Soluble in Ethanol (> 25 mg/mL) or DMSO (>25 mg/ml).
Physical Description:	Off-white to pale yellow solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in ethanol or DMSO may be stored at -20°C for up to 1 month.

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