

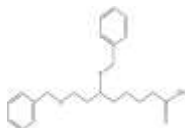
**PRODUCT: CPI-613****RELATED PRODUCTS:**Pyruvate dehydrogenase Activity Colorimetric Assay Kit (**K679-100**)

ALTERNATE NAME: 6,8-Bis[(phenylmethyl)thio]octanoic acid

CATALOG #: 9464-10, 50

AMOUNT: 10 mg, 50 mg

STRUCTURE:

MOLECULAR FORMULA: C<sub>22</sub>H<sub>28</sub>O<sub>2</sub>S<sub>2</sub>

MOLECULAR WEIGHT: 388.59

CAS NUMBER: 95809-78-2

APPEARANCE: White solid

SOLUBILITY: DMSO (&gt;30 mg/ml) or EtOH (&gt;20 mg/ml)

PURITY: ≥98% by HPLC

STORAGE: Store at -20°C. Protect from air and light

**DESCRIPTION:** CPI-613 is a non-redox active lipoate derivative that acts as a selective inhibitor mitochondrial enzymes pyruvate dehydrogenase (PDH) and α-ketoglutarate dehydrogenase. *In vitro*, CPI-613 dose-dependently and efficiently kills H460 human lung cancer cells and Saos-2 human sarcoma cells. *In vitro*, CPI-613 treatment potently disrupts H460 cancer cell mitochondrial metabolism including inhibition of PDH complex activity. CPI-613 treatment also leads to loss of mitochondrial membrane potential as assessed by JC-1 mitochondrial uptake. CPI-613 also induces apoptotic and non-apoptotic cell death in the cells of H460 human lung cancer and Saos-2 human sarcoma *in vitro*.

**REFERENCES:** Solca, F.F., *et al.* (2004). *J. Pharmacol. Exp. Ther.* **311**, 502-509.

**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**USAGE:** **FOR RESEARCH CH USE ONLY! Not to be used in humans**