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# Oxidative Phosphorylation Inhibitor IACS-010759

National Cancer Institute

## Source

National Cancer Institute. *Oxidative Phosphorylation Inhibitor IACS-010759*. NCI Thesaurus. Code C130012.

An orally bioavailable oxidative phosphorylation (OxPhos) inhibitor, with potential antineoplastic activity. Upon administration of the OxPhos inhibitor IACS-010759, this agent binds to and inhibits complex I of the electron transport chain (NADH ubiquinone oxidoreductase), thereby selectively depriving tumor cells of nutrients, and energy, and inhibiting nucleotide and amino acid production, which induces autophagy, causes tumor cell death and inhibits cell proliferation. Mitochondrial complex I, which is hyperactivated in cancer cells to meet their increased demands for energy, plays a key role in the promotion of cancer cell proliferation.