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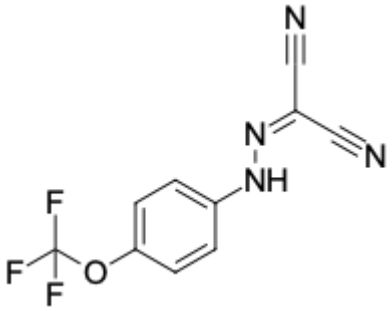
FCCP, ATPase inhibitor

http://hk.lumiprobe.com/p/fccp-trifluoromethoxy-carbonylcyanide-phenylhydrazone

FCCP (trifluoromethoxy carbonylcyanide phenylhydrazone, carbonyl cyanide 4-(trifluoromethoxy)phenylhydrazone) is a proton (H^+) ionophore and a potent mitochondrial uncoupling agent, which lowers ROS production and Ca^{2+} overload. This compound turns the mitochondrial membrane permeable to protons, thus dissipating the mitochondrial membrane potential and uncoupling oxidative phosphorylation from ATP synthesis.

FCCP is widely used to analyze mitochondrial function in living tissues, cells, and isolated mitochondrial preparations. It is also used to investigate the mechanisms of autophagy by inducing mitochondrial degradation through the disruption of the mitochondrial membrane potential.

A low concentration of FCCP (1 µM) results in a complete loss of mitochondrial membrane potential without triggering mitophagy, whereas a high concentration (10 µM) leads to increased cytosol acidification, and mitochondrial degradation is attained.



外观:	亮黄色晶體
分子量:	254.17
CAS 编号:	370-86-5
分子式:	$C_{10}H_5F_3N_4O$
IUPAC 名称:	2-[2-[4-(trifluoromethoxy)phenyl]hydrazinylidene]-propanedinitrile
溶解度:	溶於 DMSO (100 mM)。可溶於甲醇、乙醇和丙酮，濃度為 20 mg/mL。不溶於水。
质量控制:	NMR ^1H 和 HPLC-MS (95+%)
储存条件:	收到後 -20°C 避光保存 24 個月。運輸：室溫最多可保存3週。乾燥。
法律声明:	本產品僅供研究目的提供和銷售。本產品並未經過食品、藥品、醫療器械、化妝品等領域的安全性和效力測試，且未經明示或暗示授權用於其他任何用途，包括但不限於體外診斷、人類或動物用途，以及商業用途。