

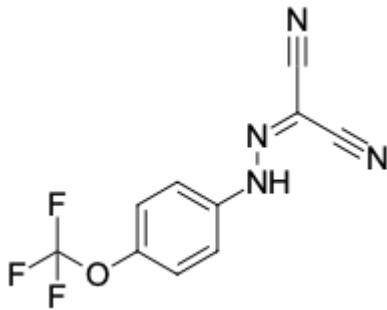
## FCCP, ATPase inhibitor

<http://cn.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  $\mu M$ ) results in a complete loss of mitochondrial membrane potential without triggering mitophagy, whereas a high concentration (10  $\mu M$ ) leads to increased cytosol acidification, and mitochondrial degradation is attained.



外观: 亮黄色晶体

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: 可溶于 DMSO (100 mM)。可溶于甲醇、乙醇和丙酮, 溶解度达 20 mg/mL。不溶于水。

质量控制: NMR  $^1H$  和 HPLC-MS (95+%)

储存条件: 收到后在  $-20^{\circ}C$  黑暗条件下可保存 24 个月。运输: 室温下最多可保存 3 周。干燥。

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