Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

FCCP

Product overview

Name	FCCP
Cat No	HB2903
Alternative names	Carbonyl cyanide 4-(trifluoromethoxy)phenylhydrazone
Purity	>98%
Description	Potent uncoupler of mitochondrial oxidative phosphorylation.

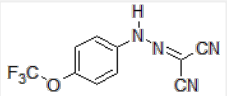
Biological Data

Biological description	FCCP is an protonophore which is widely used to investigate the role of mitochondria in cellular function. FCCP is a potent uncoupler of mitochondrial oxidative phosphorylation. FCCP disrupts ATP synthesis by transporting protons across the mitochondrial inner membrane, interfering with the proton gradient. FCCP also induces apoptosis. The uncoupling agent CCCP is also available.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	Carbonyl cyanide 4-(trifluoromethoxy)phenylhydrazone
Molecular Weight	254.17
Chemical structure	
Molecular Formula	$C_{10}H_5F_3N_4O$
CAS Number	370-86-5
PubChem identifier	3330
SMILES	C1=CC(=CC=C1NN=C(C#N)C#N)OC(F)(F)F
Source	Synthetic
InChi	InChI=1S/C10H5F3N4O/c11-10(12,13)18-9-3-1-7(2-4-9)16-17-8(5-14)6-15/h1-4,16H
InChiKey	BMZRVOVNUMQTIN-UHFFFAOYSA-N
MDL number	MFCD00009699
Appearance	Yellow solid

References

Mitochondrial uncoupler FCCP activates proton conductance but does not block store-operated Ca(2+) current in liver cells.

MS et al (2010) Arch Biochem Biophys 495(2)
PubMedID 20060804

FCCP depolarizes plasma membrane potential by activating proton and Na+ currents in bovine aortic endothelial cells.

Park et al (2002) Pflugers Arch 443(3)
PubMedID 11810202

Mitochondrial uncoupling, with low concentration FCCP, induces ROS-dependent cardioprotection independent of KATP channel activation.

Brennan et al (2006) Cardiovasc Res. 72(2)
PubMedID 16950237