

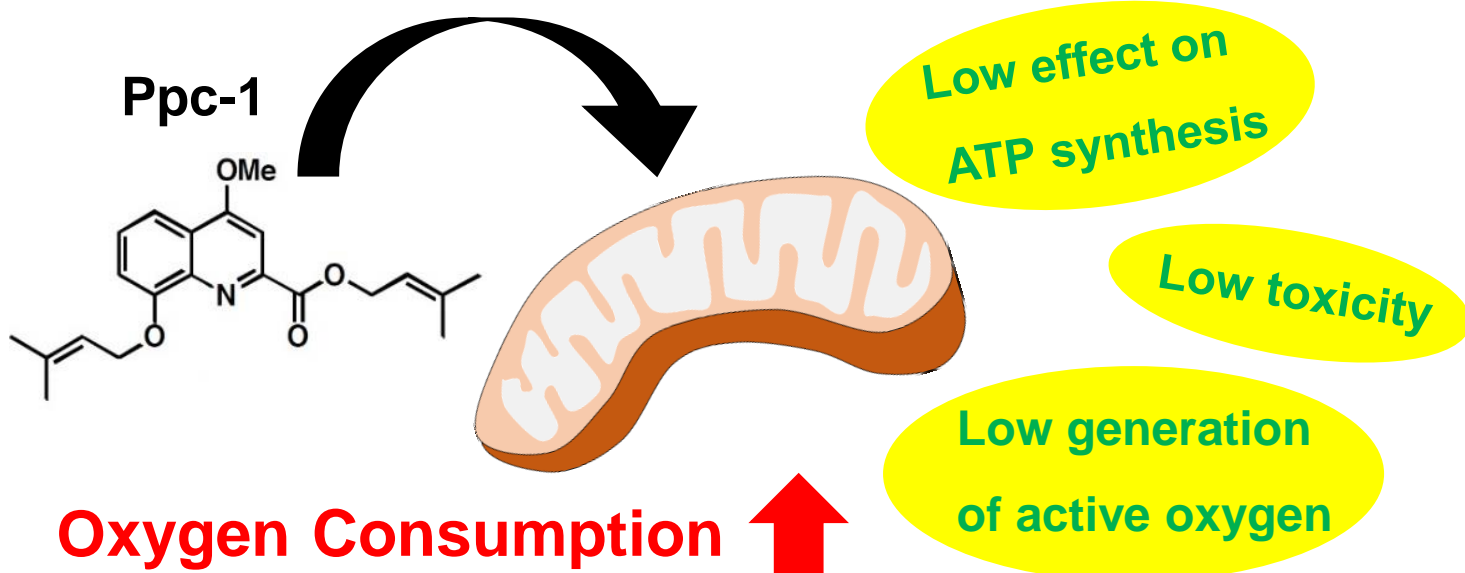
Ppc-1

Novel mitochondria uncoupling agent

For more information : http://www.funakoshi.co.jp/exports_contents/80714

Increasing mitochondria's oxygen consumption

without inhibiting ATP synthesis



Product Information

Chemical name	3-Methylbut-2-enyl 4-methoxy-8-(3-methylbut-2-enyloxy)quinoline-2-carboxylate
CAS No.	1245818-17-0
Molecular formula	C ₂₁ H ₂₅ NO ₄
Molecular weight	355.43
Solubility	Soluble in DMSO
Purity	≥ 98%

[Manufacturer : FNA]

Product Name	Catalog #	Size	Storage
Ppc-1, MitoUncoupler	FDV-0011	5 mg	-20 °C

What is Ppc-1, MitoUncoupler ?

In mitochondria, there are two conjugate functions to produce ATP : Electron transport chain and oxidative phosphorylation.

There are chemical compounds to inhibit these conjugate functions, called uncoupler.

Ppc-1 is a new uncoupler isolated from cellular slime mold, *Polysphondylium pseudo-candidum*, and it draws attention of researchers for following functions.

- 1) **Ppc-1 stimulates oxygen consumption without inhibiting ATP synthesis in mitochondria**, isolated from mouse liver. ^{1), 2)}
- 2) **Ppc-1 administrated mouse shows inhibition of weight gain**, without affecting liver and kidney. ^{1), 2)}
- 3) **Cell proliferation is inhibited without inducing cell death**, in Ppc-1 treated 3T3-L1 cells. ³⁾

This product has been commercialized under the license of the University of Tokyo.

Features

- **Comparatively mild uncoupling activity.**
- **Low effect on ATP synthesis or degradation.**
- **Low generation of active oxygen.**
- **Low cytotoxicity.**
- **Cell proliferation is inhibited by adding Ppc-1 to culture medium.**

Reference

- 1) Suzuki T, *et al.*, *PLoS One*, 2015 Feb10; 10(2):e0117088.
- 2) Kikuchi H, *et al.*, *Bioorg. Med. Chem.*, 23(1): 66-72(2015).
- 3) Kikuchi H, *et al.*, *Tetrahedron*, 66: 6000-6007(2010).

NOTE

※ All products here are research use only, not for diagnostic use.
※ Specs might be changed for improvement without notice.

※ Company name and product name are trademark or registered mark.
※ Please contact your local distributors for orders, quote request and inquiry.

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