



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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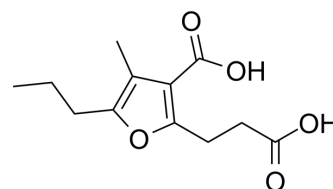
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## CMPF

<b>Cat. No.:</b>	HY-129297		
<b>CAS No.:</b>	86879-39-2		
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>16</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	240.25		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



## SOLVENT & SOLUBILITY

### In Vitro

DMSO : 250 mg/mL (1040.58 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.1623 mL	20.8117 mL	41.6233 mL
	5 mM	0.8325 mL	4.1623 mL	8.3247 mL
	10 mM	0.4162 mL	2.0812 mL	4.1623 mL

Please refer to the solubility information to select the appropriate solvent.

### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (10.41 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (10.41 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (10.41 mM); Clear solution

## BIOLOGICAL ACTIVITY

### Description

CMPF can be found in trace constituent of urine and blood. CMPF is a biomarker of type 2 diabetes. CMPF can act on the β cell and induces impaired mitochondrial function. CMPF decreases glucose-induced ATP accumulation, and induces oxidative stress. CMPF reverses hepatic lipid accumulation and improves insulin sensitivity in obese mice<sup>[1][2]</sup>.

### IC<sub>50</sub> & Target

Human Endogenous Metabolite

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## REFERENCES

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- [1]. Prentice KJ, et al. The furan fatty acid metabolite CMPF is elevated in diabetes and induces  $\beta$  cell dysfunction. *Cell Metab.* 2014 Apr 1;19(4):653-66.
- [2]. Prentice KJ, et al. CMPF, a Metabolite Formed Upon Prescription Omega-3-Acid Ethyl Ester Supplementation, Prevents and Reverses Steatosis. *EBioMedicine.* 2018 Jan;27:200-213.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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