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Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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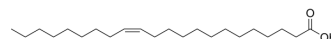
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Erucic acid

Cat. No.:	HY-N7109		
CAS No.:	112-86-7		
Molecular Formula:	C ₂₂ H ₄₂ O ₂		
Molecular Weight:	338.57		
Target:	PI3K; Endogenous Metabolite		
Pathway:	PI3K/Akt/mTOR; Metabolic Enzyme/Protease		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (295.36 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.9536 mL	14.7680 mL	29.5360 mL
	5 mM	0.5907 mL	2.9536 mL	5.9072 mL
	10 mM	0.2954 mL	1.4768 mL	2.9536 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 (7.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (7.38 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (7.38 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Erucic acid, a monounsaturated fatty acid (MUFA), is isolated from the seed of *Raphanus sativus* L. Erucic acid can readily cross the blood-brain barrier (BBB), it has been reported to normalize the accumulation of very long-chain fatty acids in the brain. Erucic acid can improve cognitive impairment and be effective against dementia^[1].

In Vivo

Erucic acid (oral administration; 3 mg/kg) enhances the phosphorylation level of PI3K, PKCζ, ERK, CREB and Akt in the hippocampus compared with that in the vehicle-treated control group^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Normal naïve mice ^[1]
Dosage:	3 mg/kg
Administration:	Oral administration; 3 mg/kg
Result:	Enhanced the phosphorylation level of PI3K, PKCζ, ERK, CREB and Akt in the hippocampus.

REFERENCES

[1]. Kim E, et al. The memory-enhancing effect of erucic acid on scopolamine-induced cognitive impairment in mice. *Pharmacol Biochem Behav.* 2016 Mar;142:85-90.

Caution: Product has not been fully validated for medical applications. For research use only.

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