



# SZABO SCANDIC

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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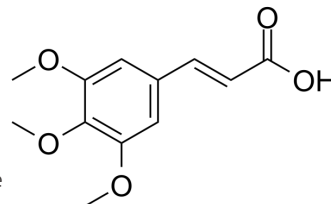
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## 3,4,5-Trimethoxycinnamic acid

<b>Cat. No.:</b>	HY-W012123		
<b>CAS No.:</b>	90-50-6		
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>14</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	238.24		
<b>Target:</b>	GABA Receptor; Endogenous Metabolite		
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; 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

<b>In Vitro</b>	DMSO : 100 mg/mL (419.74 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	4.1974 mL	20.9872 mL	41.9745 mL
		5 mM	0.8395 mL	4.1974 mL	8.3949 mL
10 mM		0.4197 mL	2.0987 mL	4.1974 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (10.49 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (10.49 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (10.49 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	3,4,5-Trimethoxycinnamic acid is a phenylpropanoid isolated from the roots of <i>Polygala tenuifolia</i> WILLD, with anti-stress effect, prolonging the sleeping time in animals <sup>[1][2]</sup> . 3,4,5-Trimethoxycinnamic acid increases expression of GAD65 and γ-subunit of GABAA receptor, but shows no effect on the amounts of α-, β-subunits <sup>[2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite
<b>In Vitro</b>	3,4,5-Trimethoxycinnamic acid (10 μg/ml) increases expression of GAD65 and γ-subunit of GABAA receptor, but shows no

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	effect on the amounts of $\alpha$ -, $\beta$ -subunits <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	3,4,5-Trimethoxycinnamic acid (25-100 mg/kg, i.p.) exhibits sedative effect, and prolongs the sleeping time in rats <sup>[1]</sup> . 3,4,5-Trimethoxycinnamic acid (10 mg/kg, p.o.) significantly decreases locomotor activity in mice <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

- [1]. Kawashima K, et al. Anti-stress effects of 3,4,5-trimethoxycinnamic acid, an active constituent of roots of *Polygala tenuifolia* (Onji). *Biol Pharm Bull.* 2004 Aug;27(8):1317-9.
- [2]. Lee CI, et al. 3,4,5-Trimethoxycinnamic acid (TMCA), one of the constituents of *Polygalae Radix* enhances pentobarbital-induced sleeping behaviors via GABAergic systems in mice. *Arch Pharm Res.* 2013 Oct;36(10):1244-51.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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