



# 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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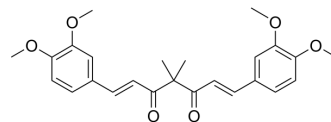
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## Tetramethylcurcumin

<b>Cat. No.:</b>	HY-N2521
<b>CAS No.:</b>	52328-97-9
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>28</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	424.49
<b>Target:</b>	STAT; Apoptosis
<b>Pathway:</b>	JAK/STAT Signaling; Stem Cell/Wnt; Apoptosis
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (235.58 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.3558 mL	11.7788 mL	23.5577 mL
	5 mM	0.4712 mL	2.3558 mL	4.7115 mL
	10 mM	0.2356 mL	1.1779 mL	2.3558 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Tetramethylcurcumin (FLLL31), derived from curcumin, specifically suppresses the phosphorylation of STAT3 by binding selectively to Janus kinase 2 and the STAT3 Src homology-2 domain. Tetramethylcurcumin exhibits anti-inflammatory and anti-cancer effects<sup>[1][2]</sup>.

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

STAT3

#### In Vitro

Tetramethylcurcumin (FLLL31; 2.5 and 5 μM; for 24 hours) downregulates STAT3 phosphorylation and DNA-binding activity in MDA-MB-231 breast and PANC-1 pancreatic cancer cells<sup>[1]</sup>.

Tetramethylcurcumin inhibits cell viability, cell invasion. Tetramethylcurcumin is an effective inhibitor of STAT3 phosphorylation, DNA-binding activity, and transactivation in vitro, leading to the impediment of multiple oncogenic processes and the induction of apoptosis in pancreatic and breast cancer cell lines<sup>[1]</sup>.

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

### REFERENCES

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[1]. Lin L, et al. Novel STAT3 phosphorylation inhibitors exhibit potent growth-suppressive activity in pancreatic and breast cancer cells. *Cancer Res.* 2010 Mar 15;70(6):2445-54.

[2]. Yuan S, et al. FLLL31, a derivative of curcumin, attenuates airway inflammation in a multi-allergen challenged mouse model. *Int Immunopharmacol.* 2014 Jul;21(1):128-36.

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

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