



# 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

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

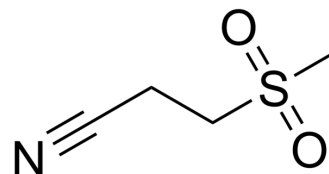
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Dapansutril

<b>Cat. No.:</b>	HY-17629		
<b>CAS No.:</b>	54863-37-5		
<b>Molecular Formula:</b>	C <sub>4</sub> H <sub>7</sub> NO <sub>2</sub> S		
<b>Molecular Weight:</b>	133.17		
<b>Target:</b>	NOD-like Receptor (NLR)		
<b>Pathway:</b>	Immunology/Inflammation		
<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 : ≥ 100 mg/mL (750.92 mM)  
 H<sub>2</sub>O : 36.67 mg/mL (275.36 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.5092 mL	37.5460 mL	75.0920 mL
	5 mM	1.5018 mL	7.5092 mL	15.0184 mL
	10 mM	0.7509 mL	3.7546 mL	7.5092 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 120 mg/mL (901.10 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (15.62 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (15.62 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (15.62 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Dapansutril is a potent, orally active and selective NLRP3 inflammasome inhibitor. Dapansutril has anti-inflammatory activity and decreases immune factor levels. Dapansutril can be used for research of inflammatory diseases<sup>[1][2]</sup>.

IC <sub>50</sub> & Target	NLRP3	
In Vivo	Dapansutrile (3.75 g/kg; p.o.; daily, for 22 d) ameliorates neurological decline and nervous tissue damage in experimental autoimmune encephalomyelitis (EAE) mice <sup>[1]</sup> .	
	Dapansutrile (3.75 g/kg; p.o.; daily, for 22 d) attenuates the protein levels of pro-inflammatory cytokines in the spinal cord of experimental autoimmune encephalomyelitis (EAE) mice <sup>[1]</sup> .	
	Dapansutrile (6-600 mg/kg; i.p.; once; male ICR (CD1) mice) reduces infarct size and reduces caspase-1 activity in the heart <sup>[2]</sup> .	
	Dapansutrile (6-600 mg/kg; i.p.; once, for 24 hours and 7 days; mice subjected to acute myocardial infarction) preserves cardiac function following myocardial ischemia-reperfusion injury <sup>[2]</sup> .	
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	EAE-induced female adult C57BL/6 (8–10 weeks old) <sup>[1]</sup>
	Dosage:	3.75 g/kg
	Administration:	Oral administration; daily, for 22 days
	Result:	Ameliorated the neurological deficits of EAE disease. Reduced the levels of IL-1 $\beta$ , L-18, TNF $\alpha$ , CXCL-1 and IL-6. Showed ~2-fold reduction in the infiltration of T cells (CD45 <sup>+</sup> , CD3 <sup>+</sup> ). Reduced the accumulation macrophages (CD45 <sup>high</sup> , CD11b <sup>+</sup> , F4/80 <sup>+</sup> ), microglia (CD45 <sup>low</sup> , CD11b <sup>+</sup> ), and other cells (CD45 <sup>+</sup> , CD11b <sup>-</sup> , CD3 <sup>-</sup> , CD24 <sup>+</sup> ).
	Animal Model:	Male ICR (CD1) mice (8-12 weeks old) <sup>[2]</sup>
	Dosage:	6, 60, and 600 mg/kg
	Administration:	Intraperitoneal injection; once
Result:	Reduced infarct size in a dose-dependent manner.	
Animal Model:	Mice subjected to acute myocardial infarction (AMI) <sup>[2]</sup>	
Dosage:	6, 60, and 600 mg/kg	
Administration:	Intraperitoneal injection; once, for 24 hours and 7 days	
Result:	Preserved left ventricular (LV) systolic function at 24 hours. Increased in cardiac function at 7 days of reperfusion when compared with the control mice.	

## CUSTOMER VALIDATION

- Hum Exp Toxicol. 2022 Jan-Dec;41:9603271221145401.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Sánchez-Fernández A, et, al. OLT1177 (Dapansutrile), a Selective NLRP3 Inflammasome Inhibitor, Ameliorates Experimental Autoimmune Encephalomyelitis Pathogenesis. Front Immunol. 2019 Nov 1;10:2578.

---

[2]. Toldo S, et, al. The NLRP3 Inflammasome Inhibitor, OLT1177 (Dapansutrile), Reduces Infarct Size and Preserves Contractile Function After Ischemia Reperfusion Injury in the Mouse. J Cardiovasc Pharmacol. 2019 Apr;73(4):215-222.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA