



# 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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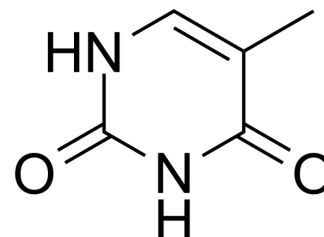
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## Thymine

<b>Cat. No.:</b>	HY-W010450		
<b>CAS No.:</b>	65-71-4		
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	126.11		
<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 : 100 mg/mL (792.96 mM; Need ultrasonic)  
 H<sub>2</sub>O : 5 mg/mL (39.65 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.9296 mL	39.6479 mL	79.2959 mL
	5 mM	1.5859 mL	7.9296 mL	15.8592 mL
	10 mM	0.7930 mL	3.9648 mL	7.9296 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 4.17 mg/mL (33.07 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (19.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (19.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (19.82 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Thymine is one of the four nucleobases in the nucleic acid of DNA and can be a target for actions of 5-fluorouracil (5-FU) in cancer treatment, with a K<sub>m</sub> of 2.3 μM.

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

Human Endogenous Metabolite

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## REFERENCES

[1]. Tuchman M, et al. Effects of uridine and thymidine on the degradation of 5-fluorouracil, uracil, and thymine by rat liver dihydropyrimidine dehydrogenase. Cancer Res. 1985 Nov;45(11 Pt 1):5553-6.

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

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