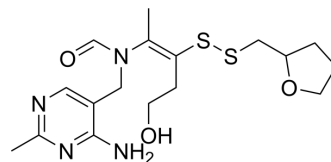


Fursultiamine

Cat. No.:	HY-B2082		
CAS No.:	804-30-8		
Molecular Formula:	C ₁₇ H ₂₆ N ₄ O ₃ S ₂		
Molecular Weight:	398.54		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 106.7 mg/mL (267.73 mM; Need ultrasonic and warming)
 H₂O : ≥ 6.67 mg/mL (16.74 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.5092 mL	12.5458 mL	25.0916 mL
	5 mM	0.5018 mL	2.5092 mL	5.0183 mL
	10 mM	0.2509 mL	1.2546 mL	2.5092 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 (6.27 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.27 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (6.27 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fursultiamine is a vitamin B₁ derivative, has anti-nociceptive and antineoplastic activity. Fursultiamine can be used for vitamin B₁ deficiency, osteoarthritis (OA) and cancer research^{[1][2]}.

REFERENCES

[1]. Kobayashi T, et al. Fursultiamine, a vitamin B1 derivative, enhances chondroprotective effects of glucosamine hydrochloride and chondroitin sulfate in rabbit experimental osteoarthritis. *Inflamm Res*. 2005 Jun;54(6):249-55.

[2]. Xiao-Yi Xiong, et al. Toll-Like Receptor 4/MyD88-Mediated Signaling of Hepcidin Expression Causing Brain Iron Accumulation, Oxidative Injury, and Cognitive Impairment After Intracerebral Hemorrhage. *Circulation*. 2016 Oct 4;134(14):1025-1038.

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

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