



LKT Laboratories, Inc.

Benfotiamine

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID B1753

CAS No. 22457-89-2

Chemical Name S-Benzoylthiamine O-monophosphate

Synonym

Formula $C_{19}H_{23}N_4O_6PS$

Formula Wt. 466.453

Melting Point $-200^{\circ}C$

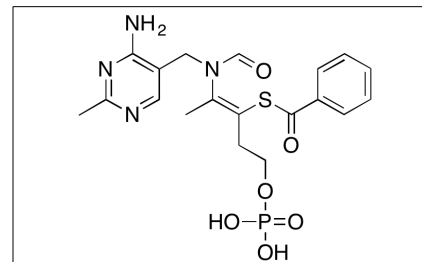
Purity $\geq 98\%$

Solubility

Store Temp Ambient

Ship Temp Ambient

Description Benfotiamine is a synthetic, lipid-soluble derivative of the B vitamin thiamine. Benfotiamine exhibits antinociceptive, neuroprotective, and anti-inflammatory activities. In animal models, benfotiamine inhibits pain signaling in a prostatic acid phosphatase-dependent manner. In vitro, benfotiamine decreases production of amyloid- β (A β) and downregulates activity of glycogen synthase kinase 3 (GSK3). In macrophages, this compound inhibits LPS-induced activation of phospholipase A2 (PLA2), release of leukotrienes, prostaglandins, and thromboxane B2 (TxB2), and also suppresses oxidative stress. Benfotiamine also decreases oxidative stress induced by streptozocin in animal models.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
B1753	250 mg	\$78.40
B1753	1 g	\$156.50
B1753	5 g	\$326.10

References Wang K, Han C, Yang J, et al. Benfotiamine protects MPTP-induced Parkinson's disease mouse model via activating Nrf2 signaling pathway. *PLoS One*. 2024 Jul 23;19(7):e0307012. PMID: 39042624.

Hurt JK, Coleman JL, Fitzpatrick BJ, et al. Prostatic acid phosphatase is required for the antinociceptive effects of thiamine and benfotiamine. *PLoS One*. 2012;7(10):e48562. PMID: 23119057.

Sun XJ, Zhao L, Zhao N, et al. Benfotiamine prevents increased β -amyloid production in HEK cells induced by high glucose. *Neurosci Bull*. 2012 Oct;28(5):561-6. PMID: 22961478.

Shoeb M, Ramana KV. Anti-inflammatory effects of benfotiamine are mediated through the regulation of the arachidonic acid pathway in macrophages. *Free Radic Biol Med*. 2012 Jan 1;52(1):182-90. PMID: 22067901.

Wu S, Ren J. Benfotiamine alleviates diabetes-induced cerebral oxidative damage independent of advanced glycation end-product, tissue factor and TNF- α . *Neurosci Lett*. 2006 Feb 13;394(2):158-62. PMID: 16260089.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.