



LKT Laboratories, Inc.

L-Theanine

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Product Information

Product ID T2816

CAS No. 3081-61-6

Chemical Name N-Ethyl-L-glutamine

Synonym Theanine

Formula $C_7H_{14}N_2O_3$

Formula Wt. 174.19

Melting Point 210-215°C (dec)

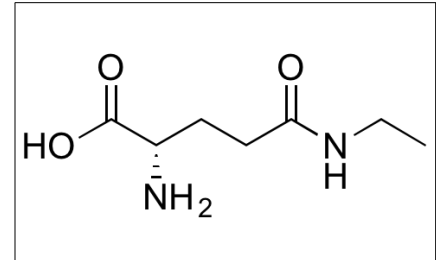
Purity $\geq 98\%$

Solubility Soluble in water or ethanol.

Store Temp Ambient

Ship Temp Ambient

Description L-Theanine is an amino acid that can be found in *Camellia* and *Boletus*; it is a glutamic acid analog. L-theanine exhibits neuroprotective, cognition enhancing, anxiolytic, and antipsychotic activities. L-Theanine is a weak agonist at AMPA and NMDA receptors, increasing brain DA, 5-HT, and GABA levels. This compound improves memory, cognition, mood, and attention in clinical settings. In animal models of cerebral ischemia, L-theanine inhibits apoptosis of hippocampal neurons, improving spatial memory.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
T2816	1 g	\$50.00
T2816	5 g	\$171.40
T2816	25 g	\$542.20

References Park SK, Jung IC, Lee WK, et al. A combination of green tea extract and l-theanine improves memory and attention in subjects with mild cognitive impairment: a double-blind placebo-controlled study. *J Med Food*. 2011 Apr;14(4):334-43. PMID: 21303262.

Ritsner MS, Miodownik C, Ratner Y, et al. L-theanine relieves positive, activation, and anxiety symptoms in patients with schizophrenia and schizoaffective disorder: an 8-week, randomized, double-blind, placebo-controlled, 2-center study. *J Clin Psychiatry*. 2011 Jan;72(1):34-42. PMID: 21208586.

Haskell CF, Kennedy DO, Milne AL, et al. The effects of L-theanine, caffeine and their combination on cognition and mood. *Biol Psychol*. 2008 Feb;77(2):113-22. PMID: 18006208.

Egashira N, Ishigami N, Pu F, et al. Theanine prevents memory impairment induced by repeated cerebral ischemia in rats. *Phytother Res*. 2008 Jan;22(1):65-8. PMID: 17705146.

Nathan PJ, Lu K, Gray M, et al. The neuropharmacology of L-theanine(N-ethyl-L-glutamine): a possible neuroprotective and cognitive enhancing agent. *J Herb Pharmacother*. 2006;6(2):21-30. PMID: 17182482.

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