



Technical Data Sheet

Epitalon

Product Information

Alternate Names:	Epithalon, Epithalone
Size:	10.0mg
Format/Appearance:	Lyophilized, white/off-white powder
Sequence:	H-Ala-Glu-Asp-Gly-OH
Purity:	>98%
Recommended Diluent:	Bacteriostatic Water

Description

Epithalon (also known as Epitalon or Epithalone) is the synthetic version of the polypeptide Epithalamin which is naturally produced in the pineal gland.

Epithalamin's primary role is to act as a type of metabolic regulator by increasing increase the sensitivity of hypothalamus to its natural hormonal influences, normalizing the function of the anterior pituitary, and regulating gonadotropin and melatonin levels. Research shows it can additionally increase a person's resistance to emotional stress, act as an antioxidant and lengthen telomeres in human cells.

Based on its functions, it can be concluded that the effects of Epitalon reach far beyond just activating telomerase. Clinical trials show that long term (15 year) treatment with Epitalon decelerated aging of the cardiovascular system, prevented age-associated impairment of physical endurance, normalized circadian rhythm of melatonin production and carbohydrate and lipid metabolism.

Indications and Benefit

- Anti-aging (geroprotective peptide)

Preparation and Storage

Prior to reconstitution, Epitalon fragment should be stored at -20C, protected from light. After reconstitution, store at 4C protected from light.

Clinical Research and Related Publications

Anisimov, V. N., & Khavinson, V. K. (2009). Peptide bioregulation of aging: results and prospects. *Biogerontology*, 11(2), 139-149. <https://doi.org/10.1007/s10522-009-9249-8>

Caputi, S., Trubiani, O., Sinjari, B., Trofimova, S., Diomede, F., Linkova, N., Diatlova, A., & Khavinson, V. (2019). Effect of short peptides on neuronal differentiation of stem cells. *International Journal of Immunopathology and Pharmacology*, 33, 205873841982861. <https://doi.org/10.1177/2058738419828613>

Goncharova, N. D., Vengerin, A. A., Khavinson, V. K., & Lapin, B. A. (2005). Pineal peptides restore the age-related disturbances in hormonal functions of the pineal gland and the pancreas. *Experimental Gerontology*, 40(1-2), 51-57. <https://doi.org/10.1016/j.exger.2004.10.004>

Khavinson, V. K., & Anisimov, V. N. (2009). Peptide Regulation of Aging: 35-Year Research Experience. *Bulletin of Experimental Biology and Medicine*, 148(1), 94-98. <https://doi.org/10.1007/s10517-009-0650-8>

Khavinson, V. K., Bondarev, I. E., & Butyugov, A. A. (2003). Epithalon Peptide Induces Telomerase Activity and Telomere Elongation in Human Somatic Cells. *Bulletin of Experimental Biology and Medicine*, 135(6), 590-592. <https://doi.org/10.1023/a:1025493705728>

Khavinson, V., Linkova, N., Diatlova, A., & Trofimova, S. (2019). Peptide Regulation of Cell Differentiation. *Stem Cell Reviews and Reports*, 16(1), 118-125. <https://doi.org/10.1007/s12015-019-09938-8>

Labunets, I. F., Butenko, G. M., Magdich, L. V., Korkushko, O. V., Khavinson, V. K., & Shatilo, V. B. (2004). Effect of Epithalamin on Circadian Relationship between the Endocrine Function of the Thymus and Melatonin-Producing Function of the Pineal Gland in Elderly People. *Bulletin of Experimental Biology and Medicine*, 137(5), 507-509. <https://doi.org/10.1023/b:bebm.0000038165.09563.b5>

Terry, D. F., Nolan, V. G., Andersen, S. L., Perls, T. T., & Cawthon, R. (2008). Association of Longer Telomeres With Better Health in Centenarians. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 63(8), 809-812. <https://doi.org/10.1093/gerona/63.8.809>