Epitalon

Ala-Glu-Asp-Gly | Synthetic Tetrapeptide | Pinealon-Derived

COMPOUND OVERVIEW

Epitalon is a synthetic tetrapeptide (Ala-Glu-Asp-Gly) derived from Epithalamin, a natural extract of the bovine pineal gland. Most foundational research originates from the St. Petersburg Institute of Bioregulation and Gerontology. It has been investigated in the context of ageing, telomere biology, and pineal gland function.

MECHANISM OF ACTION

Epitalon is reported to induce telomerase activity in somatic cells, potentially extending telomere length and delaying cellular senescence in studied models. It also modulates pineal gland melatonin secretion and shows effects on neuroendocrine regulation in aged animal models. The molecular mechanism of telomerase induction is not fully characterised.

RESEARCH APPLICATIONS

- Telomerase activity induction and telomere biology research
- Pineal gland function and melatonin regulation studies
- Neuroendocrine ageing model research
- Cellular senescence and longevity pathway investigation

EVIDENCE STATUS & KNOWN LIMITATIONS

> ***Evidence Status:*** *Epitalon research is concentrated in Russian-language literature from a small number of institutions. Independent Western peer-reviewed replication is limited. Telomerase induction claims require independent validation. Human trial data from large controlled studies is not available. Researchers should apply appropriate critical evaluation of available studies.*

ANALYTICAL & STORAGE DATA

PURITY	**>99.7% by HPLC/MS**	PHYSICAL FORM	**Lyophilised Powder**
STORAGE	**2-8 C**	SEQUENCE	**Ala-Glu-Asp-Gly**
RECONSTITUTION	**Bacteriostatic Water (USP)**	BATCH DOCS	**Available on Request**

RECONSTITUTION NOTE

Stable tetrapeptide. Introduce reconstitution solvent against the vial wall. Allow complete dissolution at rest. Solution should be clear. Refrigerate post-reconstitution.

REGULATORY CLASSIFICATION: All BioUnfolding compounds are strictly intended for laboratory evaluation and in-vitro analysis. These materials are not intended for human consumption, veterinary use, or therapeutic application. Researchers are solely responsible for compliance with applicable local regulations including SAHPRA guidelines.

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