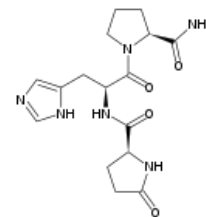


Thyrotropin releasing hormone

Thyrotropin releasing hormone, **TRH**, is the simplest of the hypothalamic hormones. It is a tripeptide composed of derivatives of the amino acids glutamate, histidine and proline^[1] (specifically pyroglutamyl-histidyl-prolinamide).^[2]



TRH

TRH has several **functions**:

- **stimulates the synthesis and secretion of thyrotropin** (TSH, thyroid stimulating hormone) from the pituitary gland;
- **when injected at high doses stimulates pituitary prolactin secretion** ;
- In the brain and spinal cord probably serve as a **neuromodulator**.^[1]

TRH has the highest concentration in the hypothalamus. Nerve cells that produce TRH in the hypothalamus are regulated from the higher centers of the CNS and by serum thyroid hormone levels. High concentrations of hormones silents the cells and low ones stimulate them. From this point of view, TRH represents the highest component of the hypothalamic-pituitary-thyroid axis.^[1]

TRH deficiency is a rare form of hypothyroidism.^[1]

Links

Related articles

- Hypothalamus
- Hypophysis
- Thyroid gland

Reference

1. UTIGER, Robert D. *Encyclopaedia britannica : thyrotropin-releasing hormone* [online]. [cit. 2013-05-28]. <<https://www.britannica.com/science/thyrotropin-releasing-hormone>>.
2. *Pubchem : Protirelin (compound)* [databáze]. [cit. 2019-05-28]. <<https://pubchem.ncbi.nlm.nih.gov/compound/638678#section=Information-Sources>>.