

Thyroid-stimulating hromon

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

TRH and its **function**:

- **stimulates the synthesis and secretion of thyrotropin**(TSH, thyroid stimulating hormone) **from hypophysis**;
- **stimulates secretion of prolactin from hypophysis when injected in high doses**;
- in the brain and in the spinal chord probably serves as a **neuromodulator**.^[1]

hypothalamus
3 aminoacids
synthesis stimulation TSH (read
the text for more information)
613879 (<https://omim.org/entry/613879>)

TRH is found in the highest concentration in the hypothalamus, but not nearly as much as in the rest of the brain. The nerve cells that produce TRH in the hypothalamus are regulated both from higher centers CNS and by the serum concentration of thyroid hormones. High concentrations of hormones suppress cells and low concentrations stimulate them. From this point of view, TRH represents the highest component of the **axis hypothalamus-pituitary-thyroid gland**'.^[1]

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

References

Related articles

- Hypothalamus
- Hypophysis
- Thyroid
- The principle of negative binding in endocrinology

References

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

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