SANTA CRUZ BIOTECHNOLOGY, INC.

TSH (TSH-116): sc-57486

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Various hormones are secreted from the anterior pituitary during development and growth, including thyroid-stimulating hormone (TSH, also known as thyrotropin), follicle-stimulating hormone (FSH) and leutinizing hormone (LH). TSH, FSH and LH are heterodimers formed from a common α chain and a unique β chain. TSH is a glycoprotein involved in the control of thyroid structure and metabolism, which stimulates the release of the thyroid hormones. TSHβ is regulated by thyroid hormone (T3) and various retinoid compounds. TSHβ binds to the thyroid-stimulating hormone receptor (TSHR), which plays a major role in regulating thyroid function. TSHR is thought to exist in multiple glycosylation states. The third cytoplasmic loop of TSHR has been identified as critical for its role in regulating inositol phosphate and cAMP formation.

REFERENCES

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2. Graves, P.N., et al. 1996. Multimeric complex formation by the thyrotropin receptor in solubilized thyroid membranes. Endocrinology 137: 3915-3920.
3. Jirkalova, V., et al. 1996. Immunoradiometric and luminescence immunoenzymometric assay of human thyrotropin from dried blood spots for screening of neonatal hypothyroidism. Eur. J. Clin. Chem. Clin. Biochem. 34: 823-827.
4. Sanders, J., et al. 1997. Understanding the thyrotropin receptor function-structure relationship. Baillieres Clin. Endocrinol. Metab. 11: 451-479.
5. Breen, J.J., et al. 1997. The rat TSHβ gene contains distinct response elements for regulation by retinoids and thyroid hormone. Mol. Cell Endocrinol. Metab. 131: 137-146.
6. Moyle, W.R., et al. 1998. Functional homodimeric glycoprotein hormones: implications for hormone action and evolution. Chem. Biol. 5: 241-254.

CHROMOSOMAL LOCATION

Genetic locus: TSHB (human) mapping to 1p13.2; Tshb (mouse) mapping to 3 F2.2.

SOURCE

TSH (TSH-116) is a mouse monoclonal antibody raised against full length TSH of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TSH (TSH-116) is recommended for detection of thyroid stimulating hormone of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with CG, LH, and FSH.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.