

Synonym

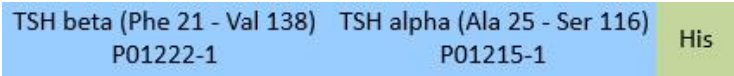
TSH alpha,beta Heterodimer,TSH,Thyrotropin

Source

Human TSH alpha/beta Heterodimer, His Tag(TSR-H52W8) is expressed from human 293 cells (HEK293). It contains AA Phe 21 - Val 138 (TSH beta) & Ala 25 - Ser 116 (TSH alpha) (Accession # [P01215-1](#) (TSH alpha) & [P01222-1](#) (TSH beta)).

Predicted N-terminus: Phe 21

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 28.4 kDa. The protein migrates as 43-48 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

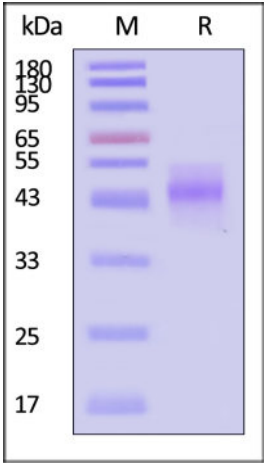
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

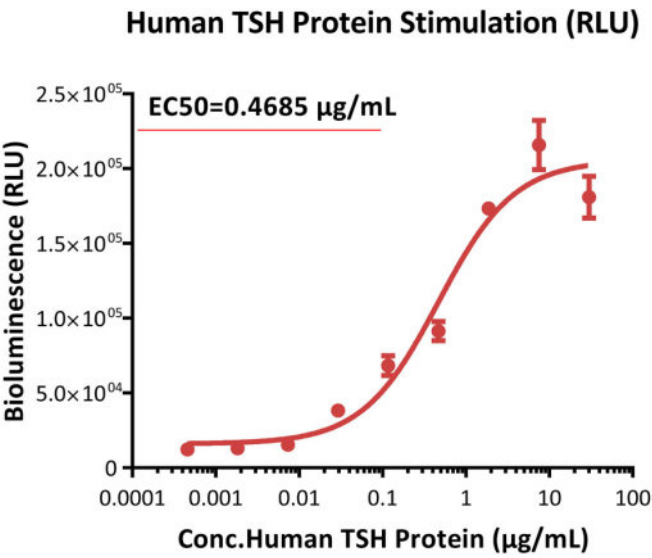
SDS-PAGE



Human TSH alpha/beta Heterodimer, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-CELL BASE





The Human TSHR (Luc) HEK293 Reporter Cell was stimulated with serial dilutions of human TSH alpha/beta Heterodimer protein (Cat. No. TSR-H52W8). The EC50 was approximately 0.4685 µg/mL.

Background

Thyroid-stimulating hormone (also known as thyrotropin, thyrotropic hormone, or abbreviated TSH) is a pituitary hormone that stimulates. It is a glycoprotein hormone produced by thyrotrope cells in the anterior pituitary gland, which regulates the endocrine function of the thyroid. Thyroid stimulating hormone consists of two subunits called alpha and beta. The alpha and beta subunits are bound together to produce the active form of the hormone. The α subunit is thought to be the effector region responsible for stimulation of adenylate cyclase (involved the generation of cAMP).The β (beta) subunit (TSHB) is unique to TSH, and therefore determines its receptor specificity.

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