

Human Thyroid Stimulating Hormone ELISA Kit (TSH)

ab100660

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Overview

Product name	Human Thyroid Stimulating Hormone ELISA Kit (TSH)
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 4 pg/ml
Range	2.744 pg/ml - 2000 pg/ml
Recovery	86 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	82.76	70% - 90%
Serum	97.89	75% - 120%
Plasma	78.59	67% - 86%

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's TSH Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human TSH in serum, plasma and cell culture supernatants.

This assay employs an antibody specific for Human TSH coated on a 96-well plate. Standards and samples are pipetted into the wells and TSH present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human TSH antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of TSH bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Notes Optimization may be required with urine samples.

Platform Microplate

Properties

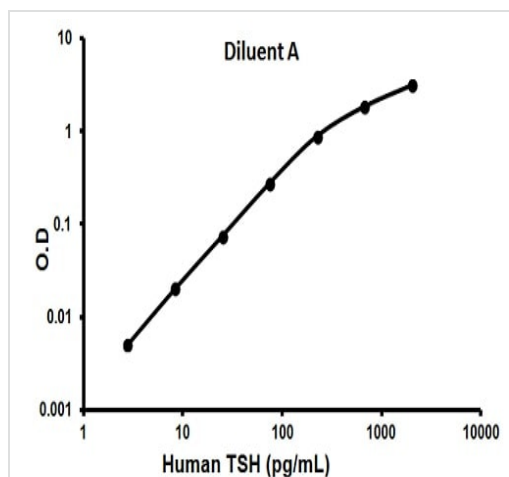
Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
200X HRP-Streptavidin Concentrate	1 x 200µl
20X Wash Buffer	1 x 25ml
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated anti-Human TSH	2 vials
Recombinant Human TSH Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml
TSH Microplate (12 x 8 wells)	1 unit

Relevance Thyroid stimulating hormone, also known as thyrotropin, is secreted from cells in the anterior pituitary called thyrotrophs, binds its receptors on epithelial cells in the thyroid gland, and stimulates that gland to synthesize and release thyroid hormones. TSH is a glycoprotein hormone composed of two subunits which are non covalently bound to one another. The alpha subunit of TSH is also present in two other pituitary glycoprotein hormones, follicle stimulating hormone and luteinizing hormone, and, in primates, in the placental hormone chorionic gonadotropin. Each of these hormones also has a unique beta subunit, which provides receptor specificity. In other words, TSH is composed of alpha subunit bound to the TSH beta subunit, and TSH associates only with its own receptor. Free alpha and beta subunits have essentially no biological activity.

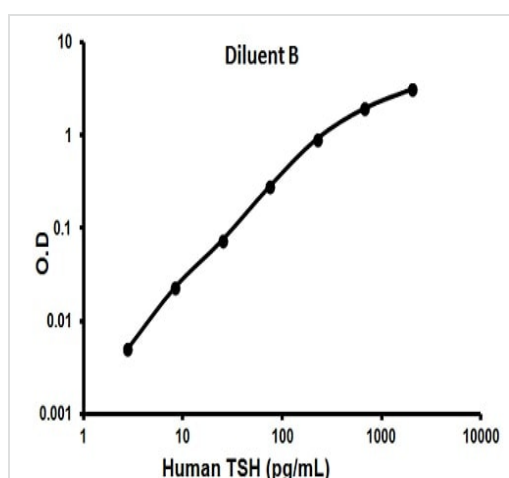
Cellular localization Secreted

Images



Representative standard curve using ab100660

Typical standard curve



Representative standard curve using ab100660

Typical standard curve

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