

Thyroid Stimulating Hormone ELISA Kit | TSH elisa kit

Thyroid Stimulating Hormone (TSH) neonatal

CATALOG #
AAA77870

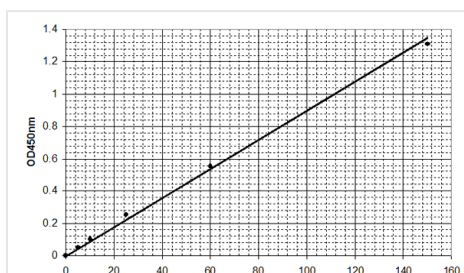
PRODUCT SYNONYMS

Thyroid Stimulating Hormone; Thyroid Stimulating Hormone (TSH) neonatal; TSH elisa kit

PRODUCT SPECIFICATIONS

Specificity	This kit exhibits no significant detectable cross-reactivity with HCG, hLH, hFSH, hProlactin, and hGH. Interference by HCG, hLH, hFSH, hProlactin, and hGH were measured by adding physiological amounts of each hormone into each blood sample.
Sensitivity	The minimal detectable concentration of TSH was determined by adding two standard deviations to the mean optical density value of 16 zero standard replicates and calculating the corresponding concentration from the standard curve. The minimum detectable dose using a standard curve is 0.77mIU/ml.
Intra-assay Precision	Within-run precision was determined by replicate determinations of three different test samples of known concentration in one assay. The mean precision of intra-assay is 6.6%.
Inter-assay Precision	Between-run precision was determined by replicate measurements of three different test samples of known concentration in 16 different assays. The mean inter-assay precision is 10.5 %.
Intended Uses	For the quantitative determination of human thyroid stimulating hormone concentration from neonatal whole blood samples collected on Schleicher and Schuell's filter paper. This kit is intended FOR LABORATORY RESEARCH USE ONLY

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for TSH elisa kit	Principle of the assay: The Neonatal TSH quantitative enzyme immunoassay described as a solid phase enzyme linked immunosorbent assay (ELISA). Monoclonal antibodies, specific to TSH, have been bound to the surface of each microplate well. During the course of the assay, a blood sample (collected on filter paper) is added to the microplate wells with Sample Buffer and incubated overnight. After washing the microplate to remove the filter paper and unbound component of the sample, a standardized preparation of horseradish peroxidase-conjugated monoclonal antibody specific for TSH beta unit is added to each well and incubated. The TSH, if present in the sample, will bind to the antibody on the coated well and will form an Antibody-TSH-Antibody-HRP "sandwich". The microplate wells are thoroughly washed to remove unbound conjugate. Next, a TMB (3,3', 5,5' tetramethyl-benzidine) substrate solution is added to each well. The enzyme (HRP) and substrate are allowed to react over a 15-minute incubation period. Only those wells that contain TSH and enzyme-conjugated antibody will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the colour change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. In order to measure the concentration of TSH in the test sample, this neonatal TSH ELISA Kit includes calibration standards and controls. The calibration standards and controls are assayed at the same time as the test samples and allow for the operator to produce a standard curve of optical density versus TSH mIU/mL, serum. Therefore, by comparing the optical density of the samples to this standard curve, the concentration of the TSH in the test samples is then determined. Background: Thyroid-stimulating hormone (TSH) is secreted by the anterior lobe of the pituitary gland and induces the production and release thyroid hormones thyroxine (T4) and triiodothyronine (T3). These thyroid hormones exert a negative feedback on the pituitary. The release of TSH is regulated by TSH-releasing hormone (TRH) produced in the hypothalamus. When there are high circulating levels of thyroid hormone in the blood, less TRH is released by the hypothalamus, so less TSH is secreted by the pituitary. The normal concentration of TSH in the blood is extremely low, but it is essential for maintenance of normal thyroid function. The determination of serum or plasma levels of TSH is recognised as a sensitive method in the identification of primary and secondary hypothyroidism. Primary Congenital Hypothyroidism (CH) occurs in 1 out of every 3,000 to 7,000 infants and is caused by athyroidism and hypoplasia. If infants are screened for this disorder during their first month, then irreversible mental retardation can be prevented through early identification and proper treatment. The state of infant's thyroid can be determined by a T4 and TSH combination-screening program. This is the most effective method for the clinician because secondary hypothyroidism may be missed by some TSH screenings and T4 screenings may miss minimal hyperthyroidism. Before starting therapy, a confirmation test should be performed if an infant is thought to be suffering from marginal or borderline hypothyroidism. These determinations should be performed using serum T3, T4, and TSH. Due to infant age, weight, prematurity and demographic variation concentrations of TSH and T4 have been shown to have some variation. Thus each laboratory must establish its own normal and cut-off values. Yes Biotech Laboratories has developed a kit using a method of collecting blood spot samples on S&S #903 filter paper and ELISA techniques. This kit can quantitatively determine TSH level in neonates sensitively, accurately, safely and reliably. It is an important and practical tool to determine thyroids state of neonates, thus making it possible to prevent against infant mental retardation.
Product Categories/Family for TSH elisa kit	ELISA Kits for Human Hormones

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/tsh-elisa-kits/thyroid-stimulating-hormone/77870>