

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TSH R in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 484405
Purification	Protein A or G purified from ascites
Immunogen	NS0 mouse myeloma cell line transfected with human TSH R Accession # P16473
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
ELISA	This antibody functions as an ELISA detection antibody when paired with Mouse Anti-Human TSH R Monoclonal Antibody (Catalog # MAB65341). <i>This product is intended for assay development on various assay platforms requiring antibody pairs.</i>	

DATA

Western Blot

Detection of Human TSH R by Western Blot. Western blot shows lysates of human thyroid tissue. PVDF Membrane was probed with 2 µg/mL of Mouse Anti-Human TSH R Monoclonal Antibody (Catalog # MAB6534) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Specific bands were detected for TSH R at approximately 55 and 83 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 7.

ELISA

Human TSH R ELISA Standard Curve. Recombinant human TSH R protein was serially diluted 2-fold and captured by Mouse Anti-Human TSH R Monoclonal Antibody (Catalog # MAB65341) coated on a Clear Polystyrene Microplate (Catalog # DY990). Mouse Anti-Human TSH R Monoclonal Antibody (Catalog # MAB6534) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Thyroid stimulating hormone receptor (TSH R; also thyrotropin receptor) is an 85 kDa (unglycosylated) member of the G-protein coupled receptor 1 family. Human TSH R is synthesized as a 764 amino acid (aa) precursor that contains a 20 aa signal sequence, a 393 aa extracellular domain (ECD), a 269 aa membrane spanning domain consisting of seven transmembrane segments, and an 82 aa cytoplasmic domain. The ECD contains six leucine-rich repeats (LRR) and six potential sites of N-linked glycosylation. There are two isoforms, long and short, produced by a splicing variant corresponding to aa 253-764 in the long isoform that is missing in the short isoform. Human TSH R is 86-87% aa identical to mouse and rat TSH R. TSH R is the receptor for thyroid stimulating hormone, which plays a central role in controlling thyroid cell metabolism.