

**DESCRIPTION**

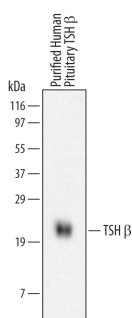
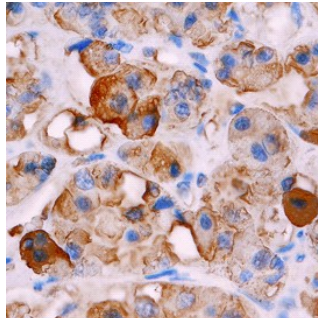
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects TSH $\beta$ in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant rat TSH $\beta$ was observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 512908
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human TSH $\beta$ Phe21-Val138 Accession # NP_000540
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	2 $\mu$ g/mL	See Below
<b>Immunohistochemistry</b>	8-25 $\mu$ g/mL	See Below

**DATA**

<p><b>Western Blot</b></p>  <p><b>Detection of Human TSH <math>\beta</math> by Western Blot.</b> Western blot shows purified human pituitary TSH <math>\beta</math> (10 ng/lane). PVDF Membrane was probed with 2 <math>\mu</math>g/mL of Human TSH <math>\beta</math> Monoclonal Antibody (Catalog # MAB57941) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for TSH <math>\beta</math> at approximately 25 kDa (as indicated). This experiment was conducted under non-reducing conditions and using <a href="#">Immunoblot Buffer Group 1</a>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>TSH <math>\beta</math> in Human Pituitary.</b> TSH <math>\beta</math> was detected in immersion fixed paraffin-embedded sections of human pituitary using Human Thyroid Stimulating Hormone Subunit Beta Monoclonal Antibody (Catalog # MAB57941) at 15 <math>\mu</math>g/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of thyrotrope cells. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

TSH  $\beta$  is the 138 amino acid (aa), 15 kDa unique subunit of Thyroid Stimulating Hormone (TSH), which shares a common alpha subunit with other glycoprotein hormones luteinizing hormone (LH), follicle-stimulating hormone (FSH) and chorionic gonadotropin (CG). Production of TSH by the anterior pituitary gland is stimulated by the hypothalamic peptide TRH, and inhibited by feedback from the thyroid hormones triiodothyronine (T3) and thyroxine (T4). Mature human TSH  $\beta$  shares 89% and 90% aa sequence identity with mouse and rat TSH  $\beta$ , respectively.