**DESCRIPTION**

Species Reactivity: Human

Specificity: Detects human FSH β in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody shows 50% cross-reactivity with recombinant rat (r) FSH β.

Source: Monoclonal Mouse IgG2B Clone # 405326

Purification: Protein A or G purified from hybridoma culture supernatant

Immunogen: E. coli-derived recombinant human FSH β Asn19-Glu129 Accession # P01225

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 either lyophilized or 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**

| Western Blot | 2 μg/mL | See Below |

**DATA**

**Western Blot**

Detection of Human FSH β by Western Blot. Western blot shows lysates of human pituitary tissue. PVDF membrane was probed with 2 μg/mL of Mouse Anti-Human FSH β Monoclonal Antibody (Catalog # MAB4310) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for FSH β at approximately 17-23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**PREPARATION AND STORAGE**

Reconstitution: Reconstitute at 0.5 mg/mL in sterile PBS.

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.

- 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**

Follicle-stimulating hormone (FSH; also follitropin) is a 33 kDa heterodimer belonging to the glycoprotein hormones subunit beta family (1). The heterodimer is composed of two glycoproteins linked noncovalently: a common alpha subunit, which is also a component of luteinizing hormone, thyroid stimulating hormone, and chorionic gonadotropin; and a unique beta subunit that confers the protein's specific biological action and is responsible for the interaction with FSH receptor. The alpha subunit is 20 kDa and is synthesized as a 116 amino acid (aa) precursor that contains a 24 aa signal sequence and a 92 aa mature chain, which contains two potential sites of N-linked glycosylation (1-2). The beta subunit is 23 kDa and is synthesized as a 129 aa precursor with an 18 aa signal sequence and a 111 aa mature chain, which also contains two potential sites of N-linked glycosylation (1). Human FSH beta shares approximately 90% aa sequence identity with mouse and rat FSH beta. FSH is secreted by gonadotropes of the anterior pituitary gland. Its release is controlled by pulses of gonadotropin-releasing hormone (GnRH), and those pulses, in turn, are subject to the estrogen feedback from the gonads. FSH regulates the development, growth, pubertal maturation, and reproductive processes of the human body. It promotes follicle maturation and spermatogenesis through interactions with FSH-receptor.

References: