Species Reactivity: Human/Mouse/Rat

Specificity: Detects endogenous human, mouse and rat 11β-HSD1 in Western blots.

Source: Polyclonal Goat IgG

Purification: Antigen Affinity-purified

Immunogen: E. coli-derived recombinant human 11β-HSD1

Accession #: P28845

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

0.5 µg/mL

See Below

DATA

Western Blot

Detection of Human/Mouse/Rat 11β-HSD1 by Western Blot. Western blot shows lysates of human, mouse and rat liver tissue. PVDF membrane was probed with 0.5 µg/mL of Human/Mouse/Rat 11β-HSD1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3397) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for 11β-HSD1 at approximately 36 kDa (as indicated). This experiment was conducted using Immunoblot Buffer Group 2.

PREPARATION AND STORAGE

Reconstitution: Reconstitute at 0.2 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

11β-Hydroxysteroid Dehydrogenase type I (11β-HSD1) is a microsomal glycoprotein enzyme, with an apparent mass of 36 kDa, that catalyzes the conversion of the stress hormone cortisol to the inactive metabolite cortisone. 11β-HSD1 can also catalyze the reverse reaction, the conversion of cortisone to cortisol. 11β-HSD1 has been detected in a wide range of rat and human tissues, including lung and testis, but highest amounts are expressed in the liver. Human 11β-HSD1 shares 79 and 77% sequence identity with mouse and rat 11β-HSD1, respectively. There are at least 2 isoforms of 11β-HSD. The other isoform, type II, is expressed predominantly in the kidney and placenta and catalyzes only the 11β-dehydrogenation reaction. High levels of cortisol can lead to visceral obesity and particular defects in the expression or function of 11β-HSD1 have also been associated with insulin resistance and cognitive function.