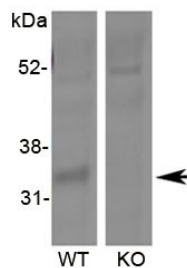


HSD11B1 Antibody / Glucocorticoid Metabolism Enzyme (R36132)

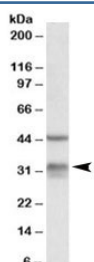
Catalog No.	Formulation	Size
R36132-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

[Bulk quote request](#)

Availability	1-3 business days
Species Reactivity	Mouse
Predicted Reactivity	Rat
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	15483
Applications	Western Blot : 0.3-1ug/ml ELISA (peptide) LOD : 1:32000
Limitations	This HSD11B1 Antibody / Glucocorticoid Metabolism Enzyme is available for research use only.



HSD11B1 Antibody Knockout Lung WB. Western blot analysis of mouse lung tissue lysates from wild-type and Hsd11b1 knockout mice using goat polyclonal HSD11B1 antibody at 0.3 ug/ml. The approximately 32 kDa band detected in wild-type tissue is markedly reduced in knockout samples, consistent with the predicted molecular weight of Hydroxysteroid 11-beta dehydrogenase 1 / HSD11B1, a glucocorticoid metabolism enzyme involved in intracellular cortisol activation.



HSD11B1 Antibody Peptide Blocking WB. Western blot testing of mouse lung tissue lysate using goat polyclonal HSD11B1 antibody at 0.3 ug/ml. The expected approximately 32 kDa HSD11B1 band and an additional approximately 45 kDa immunoreactive species are both abolished following incubation with the immunizing peptide, supporting selective recognition of HSD11B1-related protein signal.

Description

Hydroxysteroid 11-beta dehydrogenase 1 (HSD11B1) is an NADPH-dependent oxidoreductase encoded by the HSD11B1 gene and functions as a key regulator of intracellular glucocorticoid metabolism. HSD11B1 Antibody / Glucocorticoid Metabolism Enzyme is useful for studying cortisol activation, steroid hormone regulation, metabolic signaling, inflammatory responses, and endocrine pathway biology. HSD11B1 is also widely known as 11beta-HSD1 and catalyzes conversion of inactive cortisone into biologically active cortisol within peripheral tissues.

HSD11B1 antibody, also referred to as 11beta-HSD1 antibody, Hydroxysteroid 11-beta dehydrogenase 1 antibody, or Cortisone reductase antibody in the literature, recognizes a microsomal enzyme localized primarily to the endoplasmic reticulum. HSD11B1 is highly expressed in metabolic and endocrine tissues including liver, adipose tissue, lung, brain, and glucocorticoid-responsive epithelial cell populations. Through regulation of local glucocorticoid availability, HSD11B1 contributes to tissue-specific control of inflammatory signaling, glucose metabolism, adipocyte differentiation, and stress-responsive transcriptional programs.

HSD11B1 plays an important role in metabolic homeostasis and has been extensively studied in obesity, insulin resistance, metabolic syndrome, type 2 diabetes, and cardiovascular disease. Increased HSD11B1 activity may elevate intracellular cortisol concentrations and contribute to dysregulated lipid metabolism, adipose tissue expansion, and chronic inflammatory signaling. The enzyme has additionally been implicated in pulmonary inflammation, neurodegenerative disease, hepatic metabolism, and glucocorticoid-associated immune regulation.

11beta-HSD1 functions together with hexose-6-phosphate dehydrogenase and additional endoplasmic reticulum-associated metabolic enzymes involved in steroid hormone metabolism and redox regulation. The protein is predominantly localized within the lumen of the endoplasmic reticulum where it supports glucocorticoid activation in metabolically active tissues. In western blot studies, HSD11B1 is commonly detected near its predicted molecular weight, although additional bands may occur due to post-translational modification, oligomerization, or processing-related migration differences.

HSD11B1 is encoded on human chromosome 1q32 and produces a member of the short-chain dehydrogenase/reductase superfamily containing conserved catalytic motifs involved in steroid metabolism. The enzyme participates in pathways regulating glucocorticoid signaling, inflammatory adaptation, lipid homeostasis, and cellular responses to endocrine stress. Because glucocorticoid activation influences numerous physiologic and pathologic processes, HSD11B1 remains an important target in endocrine, metabolic, and inflammation-related research.

This goat polyclonal HSD11B1 antibody has been supported using knockout-validated and peptide-blocking western blot approaches in mouse lung tissue lysates. Knockout analysis demonstrates loss of the expected approximately 32 kDa endogenous HSD11B1 signal in knockout tissue relative to wild-type controls, supporting selective target detection. Additional peptide-blocking studies show inhibition of both the expected approximately 32 kDa band and an additional approximately 45 kDa immunoreactive species following incubation with the immunizing peptide, further supporting specificity for HSD11B1-related protein detection in research applications.

Explore our [Knockdown Validated Antibodies page](#) for additional antibodies supported by gene silencing or knockout validation strategies to help confirm target-specific signal detection in western blot, immunofluorescence, and related research applications.

Application Notes

Optimal dilution of the HSD11B1 Antibody / Glucocorticoid Metabolism Enzyme should be determined by the researcher.

Immunogen

Amino acids TARSEGLQKVSR were used as the immunogen for this HSD11B1 Antibody.

Storage

Aliquot and store the HSD11B1 Antibody at -20oC.

Alternate Names

11beta-HSD1 antibody, HSD11 beta 1 antibody, Hydroxysteroid 11-beta dehydrogenase 1 antibody, Cortisone reductase antibody, HSD11B1 cortisol activation enzyme antibody