

DESCRIPTION

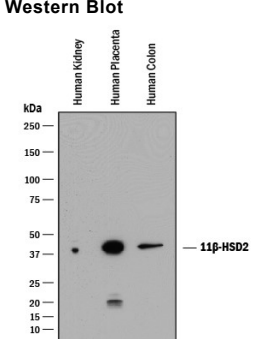
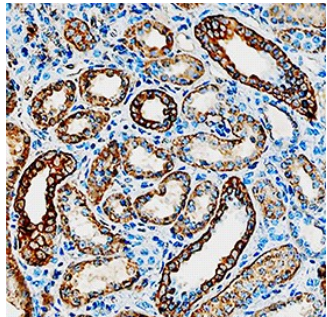
Species Reactivity	Human
Specificity	Detects human 11 β -HSD2 in direct ELISA and Western Blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 921215
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human 11 β -HSD2 Met105-Arg405 Accession # P80365
Formulation	Lyophilized from a 0.2 μ m 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 μ 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.

	Recommended Concentration	Sample
Western Blot	1 μ g/mL	See Below
Immunohistochemistry	8-25 μ g/mL	See Below

DATA

Western Blot	Immunohistochemistry
 <p>Detection of Human 11β-HSD2 by Western Blot. Western blot shows lysates of human kidney tissue, human placenta tissue, and human colon tissue. PVDF membrane was probed with 1 μg/mL of Mouse Anti-Human 11β-HSD2 Monoclonal Antibody (Catalog # MAB8630) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for 11β-HSD2 at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	 <p>11β-HSD2 in Human Kidney. 11β-HSD2 was detected in immersion fixed paraffin-embedded sections of human kidney using Mouse Anti-Human 11β-HSD2 Monoclonal Antibody (Catalog # MAB8630) at 15 μg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to convoluted tubules. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>

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. <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

The human enzyme HSD-2/11 beta-HSD2 is encoded by the HSD11B2 gene and codes for a 405 aa protein, with high expression in kidney, colon, pancreas and placenta¹. HSD-2 modulates intracellular glucocorticoid levels by catalyzing the conversion of cortisol to the inactive metabolite cortisone². HSD-2 is abundantly expressed in human placenta and controls fetal glucocorticoid levels to protect the fetus from glucocorticoid exposure. Similarly, HSD-2 expression in the distal nephron protects mineralocorticoid receptors from glucocorticoids and helps regulate blood pressure³. Exposure to major environmental pollutant like Cadmium, inhibits activity of HSD-2 which affects the synthesis of glucocorticoids in placenta and thus contribute to developing preeclamptic conditions.