

# PRODUCT INFORMATION

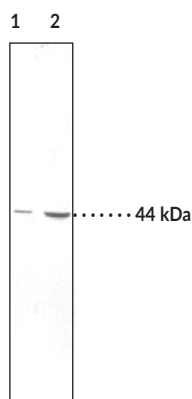


## 11 $\beta$ -Hydroxysteroid Dehydrogenase (Type 2) Polyclonal Antibody Item No. 10004549

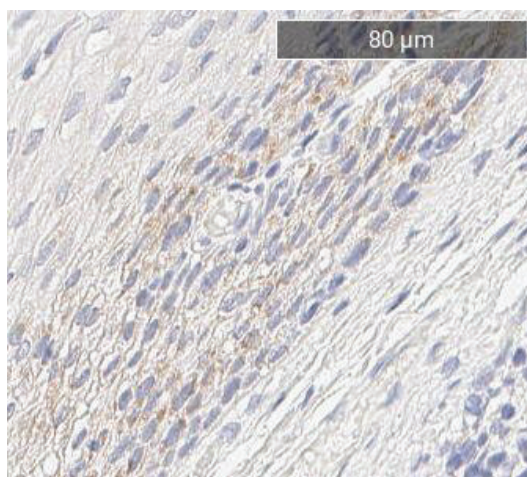
### Overview and Properties

<b>Contents:</b>	This vial contains 500 $\mu$ l of peptide affinity-purified polyclonal antibody.
<b>Synonyms:</b>	11 $\beta$ -HSD2, Corticosteroid 11 $\beta$ -Dehydrogenase Isoenzyme 2
<b>Immunogen:</b>	Synthetic peptide from the N-terminal region of human 11 $\beta$ -HSD2
<b>Species Reactivity:</b>	(+) Human, mouse, and rat; other species not tested
<b>Uniprot No.:</b>	P80365
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	$\geq$ 3 years
<b>Storage Buffer:</b>	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC is 1:100. WB and other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



**Lane 1:** Mouse kidney 100,000 x g pellet resuspension (22.5  $\mu$ g)  
**Lane 2:** Mouse kidney 100,000 x g pellet resuspension (40  $\mu$ g)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human kidney tissue after heat-induced antigen retrieval in pH 6.0 citrate buffer. After incubation with 11 $\beta$ -Hydroxysteroid Dehydrogenase (Type 2) Polyclonal Antibody (Item No. 10004549) at a 1:100 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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## Description

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11 $\beta$ -Hydroxysteroid Dehydrogenase (Type 2) (11 $\beta$ -HSD2) catalyzes the conversion of cortisol (Hydrocortisone; Item No. 20739) to the inactive glucocorticoid cortisone (Item No. 30763), thereby protecting the mineralocorticoid receptor from glucocorticoid excess.<sup>1</sup> It is primarily expressed in the kidneys, but has also been detected in the colon, salivary glands, and fetal tissues, including the placenta, and is localized to the endoplasmic reticulum.<sup>1,2</sup> Knockout of *HSD11B2*, the gene encoding 11 $\beta$ -HSD2, reduces fetal and placental growth as well as capillary development in mice.<sup>3</sup> Loss-of-function mutations in *HSD11B2* result in apparent mineralocorticoid excess (AME), an inborn error of metabolism characterized by hypertension, hypokalemia, and reduced plasma renin activity.<sup>1</sup> Cayman's 11 $\beta$ -Hydroxysteroid Dehydrogenase (Type 2) Polyclonal Antibody can be used for immunohistochemistry (IHC) and Western blot (WB) applications. The antibody recognizes 11 $\beta$ -HSD2 at 44 kDa from mouse samples.

## References

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1. White, P.C., Mune, T., and Agarwal, A.K. 11 $\beta$ -hydroxysteroid dehydrogenase and the syndrome of apparent mineralocorticoid excess. *Endocr. Rev.* **18(1)**, 135-156 (1997).
2. Náray-Fejes-Tóth, A. and Fejes-Tóth, G. Subcellular localization of the type 2 11 $\beta$ -hydroxysteroid dehydrogenase. A green fluorescent protein study. *J. Biol. Chem.* **271(26)**, 15436-15442 (1996).
3. Wyrwoll, C.S., Seckl, J.R., and Holmes, M.C. Altered placental function of 11 $\beta$ -hydroxysteroid dehydrogenase 2 knockout mice. *Endocrinology* **150(3)**, 1287-1293 (2009).

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