

## 11 $\beta$ -HSD1 Polyclonal Antibody

Catalog # AP68184

### Specification

#### 11 $\beta$ -HSD1 Polyclonal Antibody - Product Information

Application	WB, IHC-P
Primary Accession	<a href="#">P28845</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

#### 11 $\beta$ -HSD1 Polyclonal Antibody - Additional Information

Gene ID 3290

##### Other Names

HSD11B1; HSD11; HSD11L; Corticosteroid 11-beta-dehydrogenase isozyme 1; 11-beta-hydroxysteroid dehydrogenase 1; 11-DH; 11-beta-HSD1

##### Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.

IHC-P~~N/A

##### Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

##### Storage Conditions

-20°C

#### 11 $\beta$ -HSD1 Polyclonal Antibody - Protein Information

Name HSD11B1 ([HGNC:5208](#))

Synonyms HSD11, HSD11L, SDR26C1

##### Function

Controls the reversible conversion of biologically active glucocorticoids such as cortisone to cortisol, and 11- dehydrocorticosterone to corticosterone in the presence of NADP(H) (PubMed:<a href="http://www.uniprot.org/citations/10497248" target="\_blank">10497248</a>, PubMed:<a href="http://www.uniprot.org/citations/12460758" target="\_blank">12460758</a>, PubMed:<a href="http://www.uniprot.org/citations/14973125" target="\_blank">14973125</a>, PubMed:<a href="http://www.uniprot.org/citations/15152005" target="\_blank">15152005</a>, PubMed:<a href="http://www.uniprot.org/citations/15280030" target="\_blank">15280030</a>, PubMed:<a href="http://www.uniprot.org/citations/17593962" target="\_blank">17593962</a>, PubMed:<a href="http://www.uniprot.org/citations/21453287" target="\_blank">21453287</a>, PubMed:<a href="http://www.uniprot.org/citations/27927697" target="\_blank">27927697</a>, PubMed:<a href="http://www.uniprot.org/citations/30902677" target="\_blank">30902677</a>). Participates

in the corticosteroid receptor-mediated anti-inflammatory response, as well as metabolic and homeostatic processes (PubMed:<a href="http://www.uniprot.org/citations/10497248" target="\_blank">10497248</a>, PubMed:<a href="http://www.uniprot.org/citations/12414862" target="\_blank">12414862</a>, PubMed:<a href="http://www.uniprot.org/citations/15152005" target="\_blank">15152005</a>, PubMed:<a href="http://www.uniprot.org/citations/21453287" target="\_blank">21453287</a>). Plays a role in the secretion of aqueous humor in the eye, maintaining a normotensive, intraocular environment (PubMed:<a href="http://www.uniprot.org/citations/11481269" target="\_blank">11481269</a>). Bidirectional in vitro, predominantly functions as a reductase in vivo, thereby increasing the concentration of active glucocorticoids (PubMed:<a href="http://www.uniprot.org/citations/10497248" target="\_blank">10497248</a>, PubMed:<a href="http://www.uniprot.org/citations/11481269" target="\_blank">11481269</a>, PubMed:<a href="http://www.uniprot.org/citations/12414862" target="\_blank">12414862</a>, PubMed:<a href="http://www.uniprot.org/citations/12460758" target="\_blank">12460758</a>). It has broad substrate specificity, besides glucocorticoids, it accepts other steroid and sterol substrates (PubMed:<a href="http://www.uniprot.org/citations/15095019" target="\_blank">15095019</a>, PubMed:<a href="http://www.uniprot.org/citations/15152005" target="\_blank">15152005</a>, PubMed:<a href="http://www.uniprot.org/citations/17593962" target="\_blank">17593962</a>, PubMed:<a href="http://www.uniprot.org/citations/21453287" target="\_blank">21453287</a>). Interconverts 7-oxo- and 7-hydroxy-neurosteroids such as 7-oxopregnенолон and 7 $\beta$ -hydroxypregnенолон, 7-oxodehydroepiandrosterone (3 $\beta$ -hydroxy-5-androstene-7,17-dione) and 7 $\beta$ -hydroxydehydroepiandrosterone (3 $\beta$ ,7 $\beta$ -dihydroxyandrost-5-en-17-one), among others (PubMed:<a href="http://www.uniprot.org/citations/17593962" target="\_blank">17593962</a>). Catalyzes the stereo-specific conversion of the major dietary oxysterol, 7-ketocholesterol (7-oxocholesterol), into the more polar 7 $\beta$ -hydroxycholesterol metabolite (PubMed:<a href="http://www.uniprot.org/citations/15095019" target="\_blank">15095019</a>, PubMed:<a href="http://www.uniprot.org/citations/15152005" target="\_blank">15152005</a>). 7-oxocholesterol is one of the most important oxysterols, it participates in several events such as induction of apoptosis, accumulation in atherosclerotic lesions, lipid peroxidation, and induction of foam cell formation (PubMed:<a href="http://www.uniprot.org/citations/15095019" target="\_blank">15095019</a>). Mediates the 7-oxo reduction of 7-oxolithocholate mainly to chenodeoxycholate, and to a lesser extent to ursodeoxycholate, both in its free form and when conjugated to glycine or taurine, providing a link between glucocorticoid activation and bile acid metabolism (PubMed:<a href="http://www.uniprot.org/citations/21453287" target="\_blank">21453287</a>). Catalyzes the synthesis of 7 $\beta$ -25-dihydroxycholesterol from 7-oxo-25-hydroxycholesterol in vitro, which acts as a ligand for the G-protein-coupled receptor (GPCR) Epstein-Barr virus-induced gene 2 (EBI2) and may thereby regulate immune cell migration (PubMed:<a href="http://www.uniprot.org/citations/30902677" target="\_blank">30902677</a>).

### Cellular Location

Endoplasmic reticulum membrane; Single-pass type II membrane protein

### Tissue Location

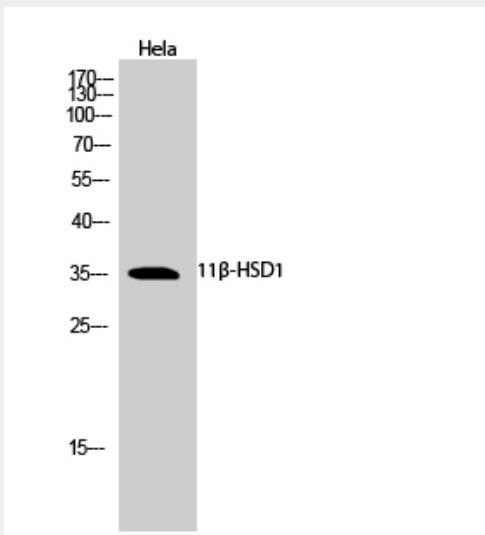
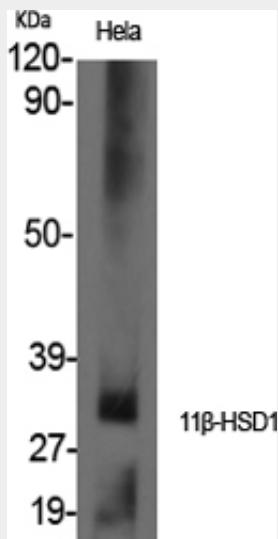
Widely expressed, highest expression in liver, lower in testis, ovary, lung, foreskin fibroblasts, and much lower in kidney (PubMed:1885595). Expressed in liver (at protein level) (PubMed:21453287). Expressed in the basal cells of the corneal epithelium and in the ciliary nonpigmented epithelium (both at mRNA and at protein level) (PubMed:11481269).

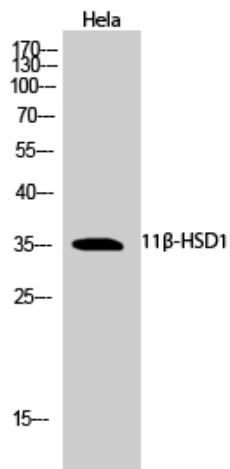
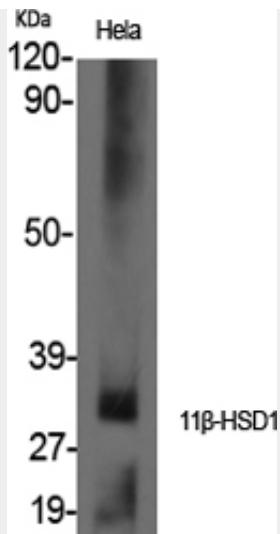
## 11 $\beta$ -HSD1 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**11 $\beta$ -HSD1 Polyclonal Antibody - Images**



### 11 $\beta$ -HSD1 Polyclonal Antibody - Background

Catalyzes reversibly the conversion of cortisol to the inactive metabolite cortisone. Catalyzes reversibly the conversion of 7-ketocholesterol to 7-beta-hydroxycholesterol. In intact cells, the reaction runs only in one direction, from 7- ketocholesterol to 7-beta-hydroxycholesterol (By similarity).