10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-HSD11B1 / HSD11B Antibody (aa1-50)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18079

Product Information

Application	WB, IHC-P, E
Primary Accession	P28845
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	32401

Additional Information

Gene ID	3290
Alias Symbol	HSD11B1
Other Names	HSD11B1, 11-beta-HSD1, 11-DH, CORTRD2, HSD11B, HSD11L, SDR26C1, HDL, HSD11
Target/Specificity	HSD11B1 Antibody detects endogenous levels of HSD11B1.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-HSD11B1 / HSD11B Antibody (aa1-50) is for research use only and not for use in diagnostic or therapeutic procedures.

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:10497248, PubMed:12460758, PubMed:14973125, PubMed:15152005, PubMed:15280030, PubMed:17593962, PubMed:21453287, PubMed:23685396, PubMed:27927697, PubMed:30902677). Participates in the corticosteroid receptor-mediated anti-inflammatory response, as well as metabolic and homeostatic processes (PubMed:10497248, PubMed:12414862, PubMed:15152005, PubMed:21453287). Plays a role in the secretion of aqueous humor in the eye, maintaining a normotensive, intraocular environment (PubMed:11481269). Bidirectional in vitro, predominantly functions as a reductase in vivo, thereby increasing the concentration of

active glucocorticoids (PubMed:10497248, PubMed:11481269, PubMed:12414862, PubMed:12460758). It has broad substrate specificity, besides glucocorticoids, it accepts other steroid and sterol substrates (PubMed:15095019, PubMed:15152005, PubMed:17593962, PubMed:21453287, PubMed:23685396). Interconverts 7-oxo- and 7-hydroxy-neurosteroids such as 7-oxopregnenolone and 7beta-hydroxypregnenolone, 7- oxodehydroepiandrosterone (3beta-hydroxy-5-androstene-7,17-dione) and 7beta-hydroxydehydroepiandrosterone (3beta,7beta-dihydroxyandrost-5-en-17-one), among others (PubMed:17593962). Catalyzes the stereo-specific conversion of the major dietary oxysterol, 7-ketocholesterol (7-oxocholesterol), into the more polar 7-beta-hydroxycholesterol metabolite (PubMed:15095019, PubMed:15152005). 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:15095019). 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:21453287). 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:30902677).

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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.