

Goat Anti-HSD11B1 / HDL Antibody
Peptide-affinity purified goat antibody
Catalog # AF1542a

Specification

Goat Anti-HSD11B1 / HDL Antibody - Product Information

Application	WB
Primary Accession	P28845
Other Accession	NP_861420 , 3290
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	32401

Goat Anti-HSD11B1 / HDL Antibody - Additional Information

Gene ID 3290

Other Names

Corticosteroid 11-beta-dehydrogenase isozyme 1, 1.1.1.146, 11-beta-hydroxysteroid dehydrogenase 1, 11-DH, 11-beta-HSD1, HSD11B1, HSD11, HSD11L

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-HSD11B1 / HDL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-HSD11B1 / HDL 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:10497248, PubMed:12460758, PubMed:12460758, PubMed:12460758)

href="http://www.uniprot.org/citations/14973125" target="_blank">14973125, PubMed:15152005, PubMed:15280030, PubMed:17593962, PubMed:21453287, 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). 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

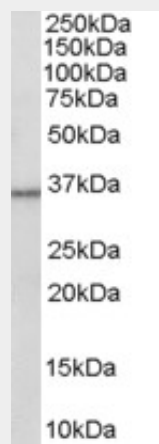
Widely expressed, highest expression in liver, lower in testis, ovary, lung, foreskin fibroblasts, and much lower in kidney (PubMed:1885595). Expressed in liver (at protein level) (PubMed:21453287). Expressed in the basal cells of the corneal epithelium and in the ciliary nonpigmented epithelium (both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

Goat Anti-HSD11B1 / HDL 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](#)

Goat Anti-HSD11B1 / HDL Antibody - Images



AF1542a (0.3 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-HSD11B1 / HDL Antibody - Background

The protein encoded by this gene is a microsomal enzyme that catalyzes the conversion of the stress hormone cortisol to the inactive metabolite cortisone. In addition, the encoded protein can catalyze the reverse reaction, the conversion of cortisone to cortisol. Too much cortisol can lead to central obesity, and a particular variation in this gene has been associated with obesity and insulin resistance in children. Two transcript variants encoding the same protein have been found for this gene.

Goat Anti-HSD11B1 / HDL Antibody - References

SRD5A2 is associated with increased cortisol metabolism in schizophrenia spectrum disorders. Steen NE, et al. *Prog Neuropsychopharmacol Biol Psychiatry*, 2010 Aug 25. PMID 20800085.
Variation at the NFATC2 Locus Increases the Risk of Thiazolidinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. *Diabetes Care*, 2010 Jul 13. PMID 20628086.
Genetic variants in the renin-angiotensin-aldosterone system and salt sensitivity of blood pressure. Gu D, et al. *J Hypertens*, 2010 Jun. PMID 20486282.
Identification of type 2 diabetes-associated combination of SNPs using support vector machine. Ban HJ, et al. *BMC Genet*, 2010 Apr 23. PMID 20416077.
Genetic variation in the estrogen metabolic pathway and mammographic density as an intermediate phenotype of breast cancer. Li J, et al. *Breast Cancer Res*, 2010. PMID 20214802.