Best Tools for immunology Research

11β-HSD1 Polyclonal Antibody

Catalog No :	YT5560
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	11β-HSD1
Fields :	>>Steroid hormone biosynthesis;>>Metabolism of xenobiotics by cytochrome P450;>>Metabolic pathways;>>Chemical carcinogenesis - DNA adducts
Gene Name :	HSD11B1
Protein Name :	Corticosteroid 11-beta-dehydrogenase isozyme 1
Human Gene Id :	3290
Human Swiss Prot No :	P28845
Mouse Gene Id :	15483
Mouse Swiss Prot No :	P50172
Rat Gene Id :	25116
Rat Swiss Prot No :	P16232
Immunogen :	Synthesized peptide derived from 11β-HSD1 . at AA range: 20-50
Specificity :	11β-HSD1 Polyclonal Antibody detects endogenous levels of 11β-HSD1 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC: 1:100-1:300. ELISA: 1:10000.. IF 1:50-200

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 35kD

Cell Pathway : Steroid hormone biosynthesis;Androgen and estrogen metabolism;Aldosterone-regulated sodium reabsorption;

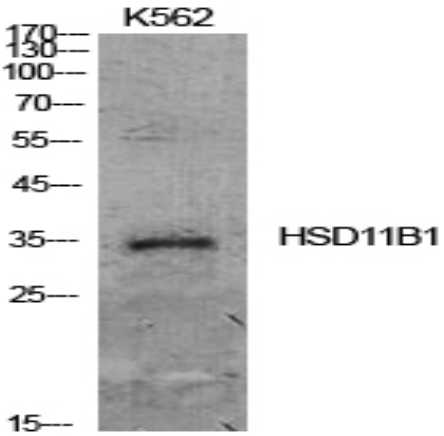
Background : hydroxysteroid 11-beta dehydrogenase 1(HSD11B1) Homo sapiens The protein encoded by this gene is a microsomal enzyme that catalyzes the conversion of the stress hormone cortisol to the inactive metabolite cortisone. In addition, the encoded protein can catalyze the reverse reaction, the 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. Mutations in this gene and H6PD (hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase)) are the cause of cortisone reductase deficiency. Alternate splicing results in multiple transcript variants encoding the same protein.[provided by RefSeq, May 2011],

Function : catalytic activity:An 11-beta-hydroxysteroid + NADP(+) = an 11-oxosteroid + NADPH.,disease:Defects in HSD11B1 are a cause of cortisone reductase deficiency (CRD) [MIM:604931]. In CRD, activation of cortisone to cortisol does not occur, resulting in adrenocorticotropin-mediated androgen excess and a phenotype resembling polycystic ovary syndrome (PCOS).,function: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.,PTM:Glycosylated.,similarity:Belongs to the short-chain dehydrogenases/reductases (SDR) family.,subunit:Homodimer.,tissue specificity:Widely expressed. Highest expression in liver.,

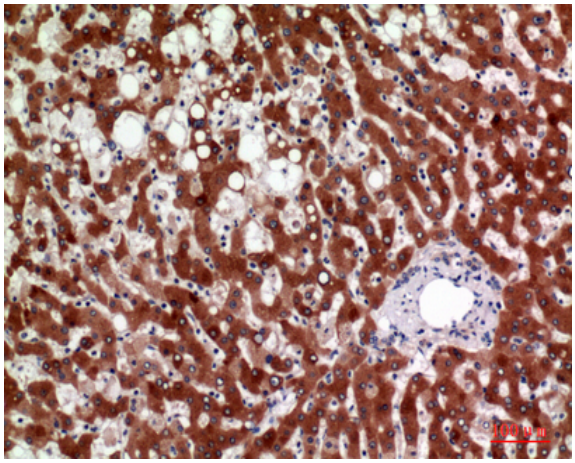
Subcellular Location : Endoplasmic reticulum membrane ; Single-pass type II membrane protein .

Expression : 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).

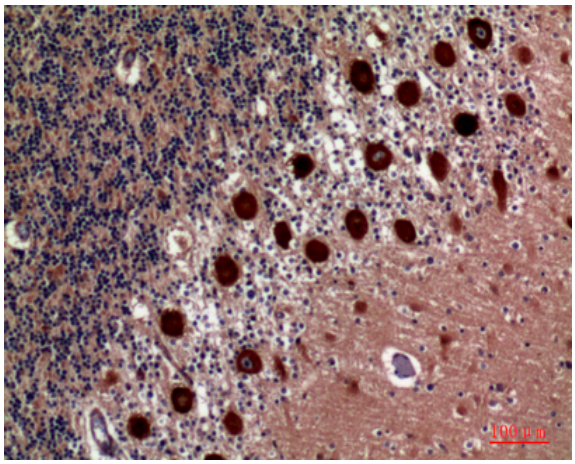
Products Images



Western Blot analysis of K562 cells using 11β-HSD1 Polyclonal Antibody. Antibody was diluted at 1:500. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-liver, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:100