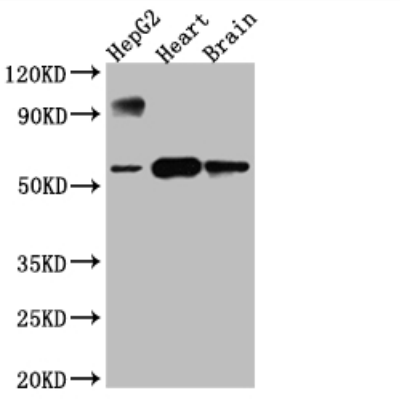
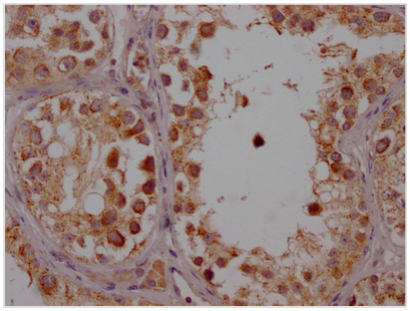
CYP17A1 Antibody

Product Code	CSB-RA554990A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P05093
Immunogen	A synthesized peptide derived from human Cytochrome P450 17A1
Species Reactivity	Human, Rat
Tested Applications	ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200
Relevance	Conversion of pregnenolone and progesterone to their 17-alpha-hydroxylated products and subsequently to dehydroepiandrosterone (DHEA) and androstenedione. Catalyzes both the 17-alpha-hydroxylation and the 17,20-lyase reaction. Involved in sexual development during fetal life and at puberty.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Metabolism; Signal transduction
Gene Names	CYP17A1
Accession NO.	5A9

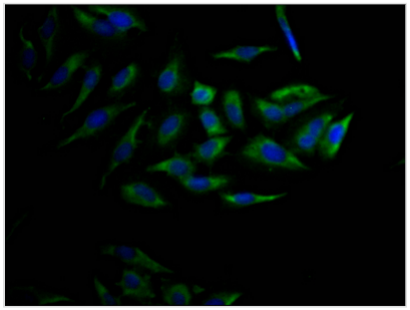
Image



Western Blot
Positive WB detected in: HepG2 whole cell lysate, Rat Heart whole cell lysate, Rat Brain whole cell lysate
All lanes: CYP17A1 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 58 kDa
Observed band size: 58 kDa



IHC image of CSB-RA554990A0HU diluted at 1:100 and staining in paraffin-embedded human testis tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of Hela Cells with CSB-RA554990A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

CYP17A1 is a key regulatory enzyme in the steroidogenic pathway. It catalyzes both 17α-hydroxylase and 17,20-lyase activities and is essential for the production of both androgens and glucocorticoids. CYP17A1 occupies a central place in steroidogenesis and acts as the major qualitative regulator of which steroids a given cell produces. Without CYP17A1, as in the zona glomerulosa (ZG) of the adrenal, the corpora lutea of the ovary, or the placenta, steroidogenesis proceeds to progesterone and little or no further. Severe mutations in the gene result in impairment of adrenal and gonadal sex-steroid production, resulting in sexual infantilism and puberty failure.

The production of this recombinant CYP17A1 antibody started with immunization. And then the workflow included B cell harvest and enrichment; import single B cell; assays to identify the specificity, affinity & functionality of the cell; export the single B cell; cDNA synthesis and sequencing; express the CYP17A1 antibody in mammalian cells. The target CYP17A1 antibody was validated in ELISA, WB, IHC, IF.