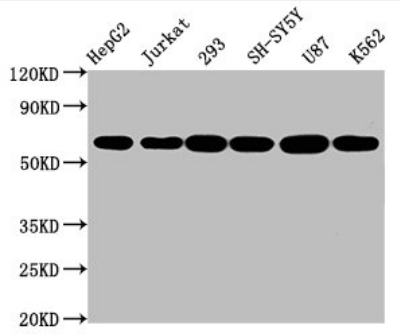
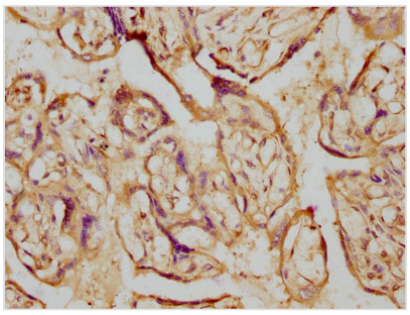
CYP19A1 Recombinant Monoclonal Antibody

Product Code	CSB-RA006394A0HU
Abbreviation	Aromatase
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P11511
Immunogen	A synthesized peptide derived from human CYP19A1
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200
Relevance	Catalyzes the formation of aromatic C18 estrogens from C19 androgens.
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
Alias	Aromatase, CYPXIX, Cytochrome P-450AROM, Cytochrome P450 19A1, Estrogen synthase, CYP19A1, ARO1, CYAR, CYP19
Immunogen Species	Homo sapiens (Human)
Research Area	Cell Biology
Gene Names	CYP19A1
Clone No.	1H1

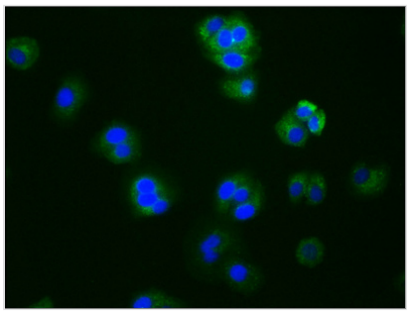
Image



Western Blot
Positive WB detected in: HepG2 whole cell lysate, Jurkat whole cell lysate, 293 whole cell lysate, SH-SY5Y whole cell lysate, U87 whole cell lysate, K562 whole cell lysate
All lanes: CYP19A1 antibody at 2.3µg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 58, 25 KDa
Observed band size: 58 KDa



IHC image of CSB-RA006394A0HU diluted at 1:230 and staining in paraffin-embedded human placenta 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 biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Immunofluorescence staining of HepG2 cells with CSB-RA006394A0HU at 1:76, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The CYP19A1 recombinant monoclonal antibody is produced using DNA recombinant technology and in vitro genetic manipulation. Initially, an animal is immunized with a synthesized peptide derived from human CYP19A1, and B cells are isolated and screened to identify positive cells. Through PCR amplification, the light and heavy chains of the CYP19A1 antibody are obtained and inserted into a plasmid vector. This recombinant vector is then transfected into a host cell line to enable antibody expression. The CYP19A1 recombinant monoclonal antibody is purified from the cell culture supernatant using affinity chromatography. It exhibits specificity for human CYP19A1 protein and is well-suited for ELISA, WB, IHC, and IF applications.

The CYP19A1 protein, also known as aromatase, is an enzyme that plays a critical role in estrogen biosynthesis. In cells, the CYP19A1 protein converts androgens into estrogens, which are important for the development and maintenance of various tissues and organs, including the female reproductive system, bone, and brain. The dysregulation of CYP19A1 activity has been implicated in a number of diseases and disorders, including breast cancer, endometriosis, and osteoporosis.