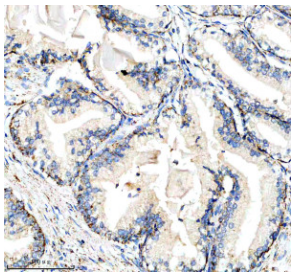
CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody [clone 20C02] (FY13506)

Catalog No.	Formulation	Size
FY13506	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

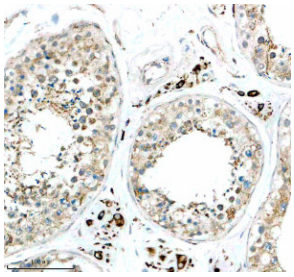
Recombinant RABBIT MONOCLONAL

Bulk quote request

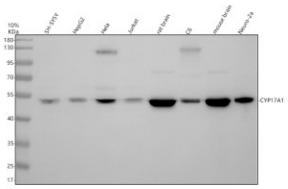
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	20C02
Purity	Antigen chromatography
UniProt	P05093
Applications	Western blot: 1:500 Immunohistochemistry (FFPE): 1:50
Limitations	This CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody is available for research use only.



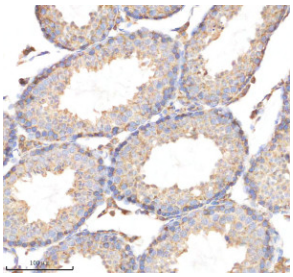
CYP17A1 Antibody in Human Prostate Cancer IHC. Immunohistochemistry staining of FFPE human prostate cancer tissue with CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody. Tissue sections underwent HIER in EDTA buffer, pH 8.0, and were blocked with 10% goat serum. The antibody was used at 1:50 overnight at 4oC, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody and DAB detection. The observed staining demonstrates CYP17A1 expression in human prostate cancer tissue.



CYP17A1 Antibody in Human Testis IHC. Immunohistochemistry staining of FFPE human testis tissue with CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody. HIER was performed in EDTA buffer, pH 8.0, followed by blocking with 10% goat serum. The antibody was used at 1:50 overnight at 4oC, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody and DAB detection. This CYP17A1 Antibody demonstrates steroid 17-alpha-hydroxylase localization in human testis tissue.



CYP17A1 Antibody in Human, Rat and Mouse WB. Western blot testing of human, rat and mouse samples with CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody. Lane 1: human SH-SY5Y; Lane 2: human HepG2; Lane 3: human HeLa; Lane 4: human Jurkat; Lane 5: rat brain; Lane 6: rat C6; Lane 7: mouse brain; Lane 8: mouse Neuro-2a. Samples were separated by SDS-PAGE under reducing conditions and the antibody was used at 1:500 overnight at 4oC. A prominent CYP17A1 band was observed at approximately 52 kDa across the tested samples, demonstrating detection of steroid 17-alpha-hydroxylase in human, rat and mouse samples.



CYP17A1 Antibody in Mouse Testis IHC. Immunohistochemistry staining of FFPE mouse testis tissue with CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody. HIER was performed in EDTA buffer, pH 8.0, followed by blocking with 10% goat serum. The antibody was used at 1:50 overnight at 4oC, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody and DAB detection. This CYP17A1 Antibody demonstrates steroidogenic enzyme localization in mouse testis tissue.

Description

CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody detects cytochrome P450 family 17 subfamily A member 1 (CYP17A1), a microsomal enzyme with essential functions in steroid hormone biosynthesis. Also known as P450c17, CYP17A1 possesses both steroid 17-alpha-hydroxylase and 17,20-lyase activities. These catalytic functions help direct steroid precursors toward the production of glucocorticoids and sex steroids, making CYP17A1 an important regulator of adrenal and gonadal steroidogenesis.

CYP17A1 is a member of the cytochrome P450 superfamily and is localized primarily to the endoplasmic reticulum of steroidogenic cells. Its 17-alpha-hydroxylase activity converts pregnenolone and progesterone to their corresponding 17-alpha-hydroxylated products. Its 17,20-lyase activity subsequently contributes to the generation of androgen precursors, including dehydroepiandrosterone (DHEA). The relative activities of CYP17A1 are influenced by interactions with accessory proteins and regulatory mechanisms that help control steroid production in different tissues.

Steroid 17-alpha-hydroxylase is highly relevant to studies of adrenal and gonadal function, endocrine signaling and androgen biosynthesis. Genetic defects affecting CYP17A1 can disrupt normal steroid hormone production and cause congenital adrenal hyperplasia associated with 17-alpha-hydroxylase/17,20-lyase deficiency. Conversely, increased or dysregulated androgen production involving CYP17A1 is important in hormone-dependent disease. CYP17A1 is particularly relevant to prostate cancer research because androgen synthesis can support androgen receptor signaling and tumor growth, including in advanced disease.

Clone 20C02 is a recombinant rabbit monoclonal antibody developed for detection of CYP17A1. The antibody has been evaluated by Western blot and immunohistochemistry, supporting its use for examining steroid 17-alpha-hydroxylase expression in cells and tissues. Recombinant production provides a defined antibody sequence and supports consistent performance across manufacturing lots.

NSJ Bioreagents supplies antibodies for research into endocrine signaling, steroid metabolism and cancer biology. A CYP17A1 Antibody can be used to investigate steroid 17-alpha-hydroxylase expression in studies of steroidogenesis, androgen biosynthesis, adrenal and gonadal biology, endocrine disorders and hormone-dependent cancer.

For related reagents used to investigate intracellular signaling and regulation of steroidogenic pathways, explore our Signal Transduction Antibodies page.

Application Notes

Optimal dilution of the CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Cytochrome P450 17A1 was used as the immunogen for the CYP17A1 Antibody.

Storage

Store the CYP17A1 Antibody at -20oC for one year, or at 4oC for one month.

Alternate Names

CYP17A1 antibody, Steroid 17-Alpha-Hydroxylase antibody, Cytochrome P450 17A1 antibody, P450c17 antibody, CYP17 antibody

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