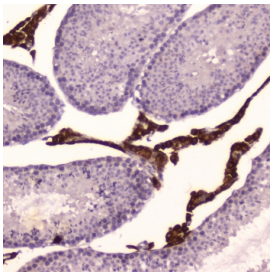
Cyp17a1 Antibody / Steroidogenic Enzyme Marker (RQ4446)

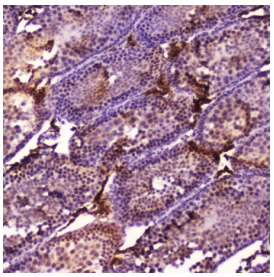
Catalog No.	Formulation	Size
RQ4446	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

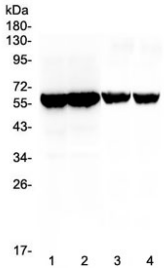
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P27786
Localization	Cytoplasmic, membranous
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Direct ELISA: 0.1-0.5ug/ml (recombinant mouse protein)
Limitations	This Cyp17a1 Antibody / Steroidogenic Enzyme Marker is available for research use only.



Cyp17a1 Antibody in Mouse Testis IHC. Immunohistochemistry staining of FFPE mouse testis tissue with Cyp17a1 Antibody / Steroidogenic Enzyme Marker at 2 ug/ml. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. The observed staining demonstrates Cyp17a1 localization in mouse testis and supports detection of this steroidogenic enzyme in gonadal tissue.



Cyp17a1 Antibody in Rat Testis IHC. Immunohistochemistry staining of FFPE rat testis tissue with Cyp17a1 Antibody / Steroidogenic Enzyme Marker at 2 ug/ml. Tissue sections underwent HIER by boiling in 10 mM citrate buffer, pH 6, for 10-20 min and were allowed to cool at RT for 20 min before testing. This Cyp17a1 Antibody demonstrates steroidogenic enzyme localization in rat testis tissue.



Cyp17a1 Antibody in Mouse and Rat Testis WB. Western blot testing of independent lots of mouse and rat testis lysate with Cyp17a1 Antibody / Steroidogenic Enzyme Marker at 0.5 ug/ml. Lanes 1 and 2: mouse testis; Lanes 3 and 4: rat testis. A specific band is detected at approximately 57 kDa, consistent with the predicted molecular weight of Cyp17a1. This Cyp17a1 Antibody demonstrates reproducible detection of the steroidogenic enzyme in mouse and rat testis.

Description

Cyp17a1 Antibody / Steroidogenic Enzyme Marker detects cytochrome P450 family 17 subfamily A member 1 (Cyp17a1), an endoplasmic reticulum-associated enzyme with important functions in steroid hormone biosynthesis. Also known as P450c17, Cyp17a1 possesses both 17-alpha-hydroxylase and 17,20-lyase activities. These complementary enzymatic activities position Cyp17a1 at important branch points in steroidogenesis and contribute to the production of glucocorticoid and sex steroid precursors.

Cyp17a1 belongs to the cytochrome P450 superfamily of monooxygenases. Its 17-alpha-hydroxylase activity catalyzes the conversion of pregnenolone and progesterone to their corresponding 17-alpha-hydroxylated products. The enzyme's 17,20-lyase activity contributes to androgen biosynthesis through the production of androgen precursors such as dehydroepiandrosterone (DHEA). Regulation of these activities helps determine steroid hormone production within adrenal and gonadal tissues.

As a steroidogenic enzyme marker, Cyp17a1 is useful for investigating cells and tissues involved in steroid hormone synthesis. In the gonads, Cyp17a1 expression is associated with steroid-producing cell populations and is studied in relation to reproductive development, gonadal function and androgen production. Changes in Cyp17a1 expression or activity can alter the balance of steroid hormones and are therefore relevant to studies of endocrine physiology and disorders of steroidogenesis.

This rabbit polyclonal Cyp17a1 Antibody was generated against a recombinant mouse Cyp17a1 protein corresponding to amino acids 80-363. The antibody is reactive with mouse and rat Cyp17a1 and has been evaluated by Western blot and immunohistochemistry, supporting its use for examining steroidogenic enzyme expression in rodent tissues.

NSJ Bioreagents supplies antibodies for research into steroid metabolism, endocrine signaling and reproductive biology. A Cyp17a1 Antibody can be used to investigate steroidogenic enzyme expression in studies of androgen biosynthesis, gonadal function, steroid hormone production and endocrine regulation.

For additional research on CYP17A1 expression and steroid hormone biosynthesis, see our CYP17A1 Antibody / Steroid 17-Alpha-Hydroxylase Antibody page.

Application Notes

Optimal dilution of the Cyp17a1 Antibody / Steroidogenic Enzyme Marker should be determined by the researcher.

Immunogen

Mouse Cyp17a1 recombinant protein (amino acids Q80-R363) was used as the immunogen for the Cyp17a1 antibody.

Storage

After reconstitution, the Cyp17a1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Cyp17a1 antibody, Cytochrome P450 17A1 antibody, Steroidogenic Enzyme Marker antibody, P450c17 antibody, Cyp17 antibody

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