

Anti-CYP11A1 Antibody Picoband®

Catalog Number: A01071-2

About CYP11A1

CYP11A1 (Cytochrome p450, family 11, subfamily A, polypeptide 1), commonly referred to as P450_{sc}, is a mitochondrial enzyme associated with the conversion of cholesterol to pregnenolone. CYP11A1 is a member of the cytochrome P450 superfamily of enzymes. The CYP11A1 gene is mapped on 15q24.1. Expression of the CYP11A1 gene may play a role in skin physiology and pathology and that cutaneous proopiomelanocortin activity may be autoregulated by a feedback mechanism involving glucocorticoids synthesized locally. Using in vitro studies, CYP11A1 catalyzed the side-chain cleavage of 7-dehydrocholesterol to form 7-dehydropregnenolone. In addition, CYP11A1 catalyzed the metabolism of biologically inert vitamin D₃, which is formed from 7-dehydrocholesterol, to form 2 hydroxylated products, 20-hydroxyvitamin D₃ and 20, 22-dihydroxyvitamin D₃. Mutations in the CYP11A1 gene cause congenital adrenal insufficiency with partial or complete 46, XY sex reversal.

Overview

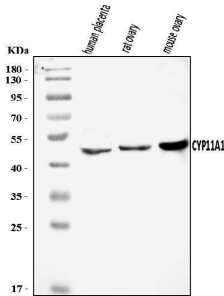
Product Name	Anti-CYP11A1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CYP11A1 Antibody Picoband® catalog # A01071-2. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P05108

Technical Details

Immunogen	E.coli-derived human CYP11A1 recombinant protein (Position: H72-Q461).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat ELISA, 0.1-0.5 ug/ml, -

Anti-CYP11A1 Antibody Picoband® (A01071-2) Images



Western blot analysis of CYP11A1 using anti-CYP11A1 antibody (A01071-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: rat ovary tissue lysates, Lane 3: mouse ovary tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CYP11A1 antigen affinity purified polyclonal antibody (Catalog # A01071-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CYP11A1 at approximately 50 kDa. The expected band size for CYP11A1 is at 50 kDa.

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Anti-CYP11A1 Antibody

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