

# Active Recombinant Human CYP17A1 protein, His-tagged

**Cat. No.** CYP17A1-1910H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Active Recombinant Human CYP17A1 protein(183-508 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 183-508 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Form</b>             | Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 5%Trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Bio-activity</b>     | <p>Microsomal human cytochrome P450 17A1 (CYP17A1, 17 <math>\alpha</math> -hydroxylase, 17,20-lyase) belongs to the cytochrome P450 super family, is expressed in the adrenals and gonads, with minor amounts in the brain, placenta, and heart. CYP17A1 enzyme operates at a key juncture of human steroidogenesis, controlling the levels of mineralocorticoids influencing blood pressure, glucocorticoids involved in immune and stress responses, and androgens and estrogens involved in development and homeostasis of reproductive tissues. Receptor Tyrosine Protein Kinase erbB-2 (ErbB2) has been identified as an interactor of CYP17A1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CYP17A1 and recombinant human ErbB2. Briefly, CYP17A1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 <math>\mu</math> l were then transferred to ErbB2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CYP17A1 pAb, then aspirated and washed 3</p> |

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times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µ stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human CYP17A1 and recombinant human ErbB2 was shown, the EC50 for this effect is 0.03 ug/mL.

**Molecular Mass** 40.6kDa

**Endotoxin** <1.0EU per 1µg (determined by the LAL method).

**Purity** >90%

**Storage** Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

**Gene Name** CYP17A1 cytochrome P450, family 17, subfamily A, polypeptide 1 [ Homo sapiens ]

**Official Symbol** CYP17A1

**Synonyms** CYP17A1; cytochrome P450, family 17, subfamily A, polypeptide 1; CYP17, cytochrome P450, subfamily XVII (steroid 17 alpha hydroxylase), adrenal hyperplasia; steroid 17-alpha-hydroxylase/17,20 lyase; CPT7; P450C17; S17AH; Steroid 17 alpha monooxygenase; CYPXVII; cytochrome P450c17; cytochrome P450-C17; cytochrome P450 17A1; cytochrome p450 XVIIA1; steroid 17-alpha-monooxygenase;

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cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia; CYP17;

**Gene ID** 1586

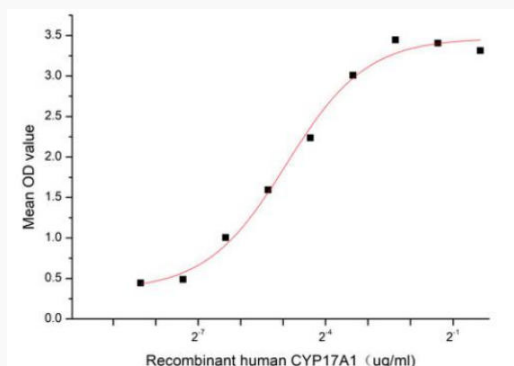
**mRNA Refseq** NM\_000102

**Protein Refseq** NP\_000093

**MIM** 609300

**UniProt ID** P05093

#### Activity

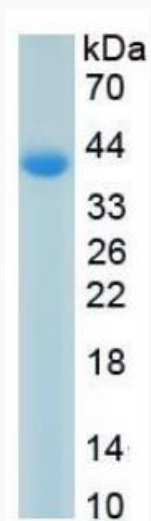


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