

# Recombinant Full Length Human CYP21A2 Protein, C-Flag-tagged

**Cat. No.** CYP21A2-24HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human CYP21A2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | <p>This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and hydroxylates steroids at the 21 position. Its activity is required for the synthesis of steroid hormones including cortisol and aldosterone. Mutations in this gene cause congenital adrenal hyperplasia. A related pseudogene is located near this gene; gene conversion events involving the functional gene and the pseudogene are thought to account for many cases of steroid 21-hydroxylase deficiency. Two transcript variants encoding different isoforms have been found for this gene.</p> |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b>   | 55.8 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>AA Sequence</b>      | MLLLGLLLLLPLLAGARLLWNWWKLQSLHLPPLAPGFLHLLQPDLPYLLGLTQKFGPI<br>YRLHLGLQDVV VLNSKRTIEEAMVKKWADFAGRPEPLTYKLVSRYNPDLNLDYSL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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LWKAHKKLTRSALLLGIRDSMEPVV EQLTQEFCEMRMQPGTPVAIEEEFSLTCSII  
CYLTFGDKIKDDNLMPAYYKCIQEVLTWSHWSIQIV DVIPFLRFFPNPGLRRLKQAI  
EKRDHIVEMQLRQHKESLVAGQWRDMMDYMLQGVAQPSMEEGSGQLLEG HVHM  
AAVDLLIGGTETTANTLSWAVVFLHHPEIQRLQEELDHELPGGASSSRVPYKDRA  
RLPLLNATI AEVLRLRPVVPLALPHRTTRPSSISGYDIPEGTVIIPNLQGAHLDETWE  
RPHEFWPDRFLEPGKNSRAL AFGCGARVCLGEPLARLELFVVLTRLLQAFTLLPSG  
DALPSLQPLPHCSVILKMQPFQVRLQPRGMGAHS  
PGQSQTRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |
| <b>Protein Families</b> | Druggable Genome, P450                                                                                                                        |
| <b>Protein Pathways</b> | C21-Steroid hormone metabolism, Metabolic pathways                                                                                            |
| <b>Full Length</b>      | Full L.                                                                                                                                       |

## GENE INFORMATION

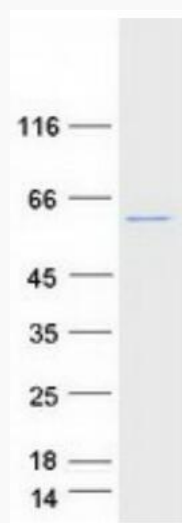
**Gene Name** CYP21A2 cytochrome P450 family 21 subfamily A member 2 [ Homo sapiens (human) ]

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|------------------------|--------------------------------------------|
| <b>Official Symbol</b> | CYP21A2                                    |
| <b>Synonyms</b>        | CAH1; CPS1; CA21H; CYP21; CYP21B; P450c21B |
| <b>Gene ID</b>         | 1589                                       |
| <b>mRNA Refseq</b>     | NM_000500.9                                |
| <b>Protein Refseq</b>  | NP_000491.4                                |
| <b>MIM</b>             | 613815                                     |
| <b>UniProt ID</b>      | P08686                                     |



Coomassie blue staining of purified CYP21A2 protein.