BACKGROUND
The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. P450 enzymes are classified into subfamilies, such as CYP1A, CYP2A, CYP2C, CYP2D, CYP4A14, CYP2A, CYP7B, CYP8B, CYP11A, CYP17A1, CYP9 and CYP27A, based on sequence similarities. CYP17A (17α-hydroxylase/17,20-lyase) is important for the conversion of pregnenolone and progesterone to dehydroepiandrosterone (DHEA) and androstenedione. In this process, it catalyzes both the 17α-hydroxylation and the 17,20-lyase reaction. CYP17A1 is crucial during sexual development, both during fetal development and during puberty, and is intracellularly regulated by cAMP levels. Defects in the CYP17A1 gene, which encodes for the protein, may cause adrenal hyperplasia type V (AH-V) which is characterized by hypokalemia and hypertension. Male patients affected by AH-V do not undergo normal sexual differentiation and develop female external genitalia and do not undergo pubertal development.

CHROMOSOMAL LOCATION
Genetic locus: CYP17A1 (human) mapping to 10q24.32; Cyp17a1 (mouse) mapping to 19 C3.

SOURCE
CYP17A1 (H-48) is a rabbit polyclonal antibody raised against amino acids 461-508 mapping at the C-terminus of CYP17A1 of human origin.

PRODUCT
Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
CYP17A1 (H-48) is recommended for detection of CYP17A1 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunochemistry (including paraffin-embedded sections (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CYP17A1 (H-48) is also recommended for detection of CYP17A1 in additional species, including equine, canine and feline.


Molecular Weight of CYP17A1: 55 kDa.


STORAGE
Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

DATA

SELECT PRODUCT CITATIONS

PROTOCOLS
See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Try CYP17A1 (D-12): sc-374244 or CYP17A1 (G-4): sc-376711, our highly recommended monoclonal alternatives to CYP17A1 (H-48).