Revision 1

#17334 Store at -20C

CYP17A1 Antibody

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	55	Rabbit	#P05093	1586

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

CYP17A1 Antibody recognizes endogenous levels of total CYP17A1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu473 of human CYP17A1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

CYP17A1, also known as cytochrome P450C17, is a steroidogenic enzyme belonging to the P450 cytochrome superfamily of monooxygenases (1, 2). In humans, CYP17A1 expression is abundantly expressed in the adrenal cortex, where it plays a central role in the androgen synthesis pathway (2). CYP17A1 is the primary target of abiraterone, a synthetic steroid used in the treatment of castration-resistant prostate cancer (CRPC) (3, 4). Abiraterone is converted to the more active form D4A, which antagonizes androgen receptor signaling by inhibiting CYP17A1 and other steroidogenic enzymes (3, 4). This suppresses the synthesis of 5α-dihydrotestosterone (DHT), which is a driver of castration-resistant prostate cancer cell growth (3, 4).

Background References

1. Missaghian, E. et al. (2009) *J Endocrinol* 202, 99-109.
2. Tee, M.K. and Miller, W.L. (2013) *J Biol Chem* 288, 23903-13.
3. Li, Z. et al. (2015) *Nature* 523, 347-51.
4. Thoma, C. (2015) *Nat Rev Urol* 12, 363.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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