

UBE2C Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	20	Rabbit	#O00762	11065

Product Usage Information**Application**

Western Blotting

Dilution

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

UBE2C Antibody recognizes endogenous levels of total UBE2C protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human UBE2C protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Protein ubiquitination requires the concerted action of the E1, E2, and E3 ubiquitin-conjugating enzymes. Ubiquitin is first activated through ATP-dependent formation of a thiol ester with ubiquitin-activating enzyme E1. The activated ubiquitin is then transferred to a thiol group of ubiquitin-carrier enzyme E2. The final step is the transfer of ubiquitin from E2 to an ε-amino group of the target protein lysine residue, which is mediated by ubiquitin-ligase enzyme E3 (1). Ubiquitin-conjugating enzyme 2C (UBE2C) is one of several ubiquitin conjugating enzymes participating in the E3 anaphase-promoting complex (APC/C). UBE2C is involved in the control of multiple stages of the cell cycle including inactivation of the mitotic spindle assembly checkpoint (2). UBE2C facilitates ubiquitin-dependent proteasomal degradation by initiating K11-linked ubiquitin chains on APC/C substrates (3). Research studies show that UBE2C expression is low in normal tissues, but its expression is dramatically upregulated in tumors derived from tissues such as lung, breast, and prostate (3-8). Overexpression of UBE2C in many types of solid tumors has been attributed to genomic amplification of the *UBE2C* locus and research studies have suggested that inhibition of UBE2C activity may have therapeutic potential (9).

Background References

1. Hershko, A. (1988) *J Biol Chem* 263, 15237-40.
2. Reddy, S.K. et al. (2007) *Nature* 446, 921-5.
3. Wickliffe, K.E. et al. (2011) *Cell* 144, 769-81.
4. Okamoto, Y. et al. (2003) *Cancer Res* 63, 4167-73.
5. Berlingieri, M.T. et al. (2007) *Eur J Cancer* 43, 2729-35.
6. Loussoarn, D. et al. (2009) *Br J Cancer* 101, 166-73.
7. Wang, Q. et al. (2009) *Cell* 138, 245-56.
8. Chen, Z. et al. (2011) *EMBO J* 30, 2405-19.
9. Wagner, K.W. et al. (2004) *Oncogene* 23, 6621-9.

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 BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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