Revision 1

Store at -20C

#83393

UBE2O Antibody

Cell Signaling TECHNOLOGY®

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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 Mk	Endogenous	200	Rabbit	#Q9C0C9	63893

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

UBE2O Antibody recognizes endogenous levels of total UBE2O protein.

Species predicted to react based on 100% sequence homology

Rat, Bovine

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val576 of human UBE2O 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).
UBE2O (E2-230K) is a unique member of the E2 family of ubiquitin-conjugating enzymes in that it functions as an E2-E3 hybrid enzyme (2). Research studies have demonstrated that UBE2O expression is regulated during erythroid differentiation, which suggests that its enzymatic activity participates in shaping the architecture of the erythrocyte proteome (3). UBE2O has also been implicated in BMP-7-induced adipocyte differentiation through its regulation of SMAD6 monoubiquitination (4).

Background References

1. Hershko, A. (1988) *J Biol Chem* 263, 15237-40.
2. Berleth, E.S. and Pickart, C.M. (1996) *Biochemistry* 35, 1664-71.
3. Wefes, I. et al. (1995) *Proc Natl Acad Sci U S A* 92, 4982-6.
4. Zhang, X. et al. (2013) *EMBO J* 32, 996-1007.

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 **Mk:** Monkey

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