

CUEDC2 Antibody

✓ 100 µl
(10 western blots)



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New 02/13

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IP Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 30-32 kDa	Source Rabbit**
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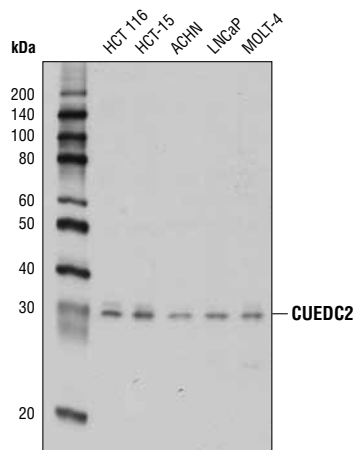
Background: CUE domain-containing 2 (CUEDC2) protein is involved in regulating many cellular events including cell cycle regulation (1) and inflammation (2). Research studies have shown that CUEDC2 is highly expressed in many types of tumors, suggesting this protein may play a role in tumorigenesis (1,3). CUEDC2 is activated in early mitosis when it is phosphorylated by Cdk1 at Ser110. Phosphorylated CUEDC2 binds to Cdc20, which leads to the release of the anaphase-promoting complex/cyclosome (APC/C) from checkpoint inhibition, initiating anaphase. CUEDC2 is then dephosphorylated when cells exit mitosis (1). CUEDC2 is also an inhibitor of IKKα and IKKβ activation (2) as well as Jak1/Stat3 signaling (4). Research indicates that inappropriate regulation of CUEDC2 may contribute to tumor development by causing chromosome instability (1). Multiple studies have reported that CUEDC2 plays a role in the downregulation of progesterone receptor and estrogen receptor α, impairing the effects of progesterone on breast cancer cell growth. Conversely, research studies have shown that CUEDC2 and HER2 expression have a significant positive correlation in breast cancers, leading investigators to suggest that CUEDC2 could be an important target for breast cancer therapy (3,5).

Specificity/Sensitivity: CUEDC2 Antibody recognizes endogenous levels of total CUEDC2 protein.

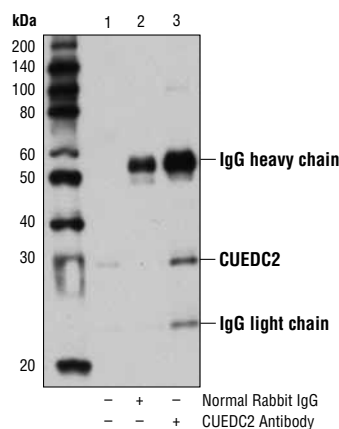
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human CUEDC2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Gao, Y.F. et al. (2011) *Nat Cell Biol* 13, 924-33.
- (2) Li, H.Y. et al. (2008) *Nat Immunol* 9, 533-41.
- (3) Pan, X. et al. (2011) *Nat Med* 17, 708-14.
- (4) Zhang, W.N. et al. (2012) *J Biol Chem* 287, 382-92.
- (5) Zhang, P.J. et al. (2007) *EMBO J* 26, 1831-42.



Western blot analysis of extracts from various cell lines using CUEDC2 Antibody.



Immunoprecipitation of CUEDC2 from SH-SY5Y cell extracts using Normal Rabbit IgG #2729 (lane 2) or CUEDC2 Antibody (lane 3). Lane 1 is 10% input. Western blot analysis was performed using CUEDC2 Antibody.

Entrez-Gene ID #79004
Swiss-Prot Acc. #Q9H467

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.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000
Immunoprecipitation 1:100

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.