

CUEDC2 Antibody

Catalog # ASC10781

Product Information

Application	WB, ICC, E
Primary Accession	Q9H467
Other Accession	NP_076945 , 148596996
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	32009
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CUEDC2 antibody can be used for detection of CUEDC2 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunocytochemistry starting at 5 μ g/mL.

Additional Information

Gene ID	79004
Other Names	CUE domain-containing protein 2, CUEDC2, C10orf66
Target/Specificity	CUEDC2; CUEDC2 antibody will not cross-react with CUEDC1.
Reconstitution & Storage	CUEDC2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CUEDC2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CUEDC2
Synonyms	C10orf66
Function	Down-regulates ESR1 protein levels through the ubiquitination-proteasome pathway, regardless of the presence of 17 beta-estradiol. Also involved in 17 beta-estradiol-induced ESR1 degradation. Controls PGR protein levels through a similar mechanism.
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Significantly up-regulated in breast tumor tissues compared with matched

adjacent normal tissues (at protein level) Levels inversely correlate with ESR1 in breast cancers and are lower in low-grade tumors compared to high-grade tumors

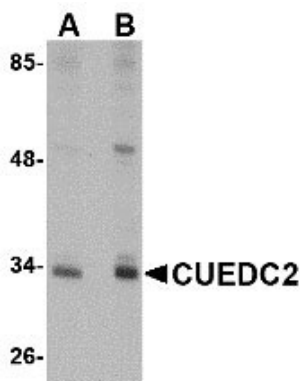
Background

CUEDC2 Antibody: The CUE (coupling of ubiquitin conjugation to endoplasmic reticulum degradation) domain is an evolutionarily conserved, ~40 amino acid monoubiquitin-binding domain that mediates intramolecular monoubiquitylation. CUE domains are present in eukaryotic proteins that are involved in ubiquitination and protein trafficking pathways and may be required for ubiquitination of the proteins in which they are found. CUEDC2 (CUE domain-containing protein 2) was found through a yeast two-hybrid screening as a protein that interacts with the progesterone receptor (PR) and promotes progesterone-induced PR degradation by the ubiquitin-proteasome pathway. CUEDC2 also decreases the sumoylation of PR. CUEDC2 has also been found to interact with IKK-alpha and IKK-beta and decrease the activation of NF- κ B by decreasing the activation of IKK.

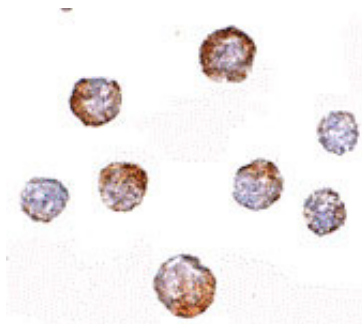
References

- Shih SC, Prag G, Francis SA, et al. A ubiquitin-binding motif required for intramolecular monoubiquitylation, the CUE domain. *EMBO J.* 2003; 22:1273-81.
- Ponting CP. Proteins of the endoplasmic-reticulum-associated degradation pathway: domain detection and function prediction. *Biochem. J.* 2000; 351:527-35.
- Prag G, Misra S, Jones EA, et al. Mechanism of ubiquitin recognition by the CUE domain of Vps9p. *Cell* 2003; 113:609-20.
- Kang RS, Daniels CM, Francis SA, et al. Solution structure of a CUE-ubiquitin complex reveals a conserved mode of ubiquitin binding. *Cell* 2003; 113:621-30.

Images



Western blot analysis of CUEDC2 in HeLa cell lysate with CUEDC2 antibody at (A) 1 and (B) 2 μ g/mL.



Immunocytochemistry of CUEDC2 in HeLa cells with CUEDC2 antibody at 5 μ g/mL.