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CDC20 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9138a

Product Information

Application	WB, FC, E
Primary Accession	Q12834
Other Accession	Q5H7C0
Reactivity	Human
Predicted	Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23122
Calculated MW	54723
Antigen Region	57-84

Additional Information

Gene ID	991
Other Names	Cell division cycle protein 20 homolog, p55CDC, CDC20
Target/Specificity	This CDC20 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 57-84 amino acids from the N-terminal region of human CDC20.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDC20 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDC20
Function	Substrate-specific adapter of the anaphase promoting complex/cyclosome (APC/C) complex that confers substrate specificity by binding to substrates and targeting them to the APC/C complex for ubiquitination and degradation

(PubMed:9734353, PubMed:27030811, PubMed:29343641). Recognizes and binds the destruction box (D box) on protein substrates (PubMed:29343641). Involved in the metaphase/anaphase transition of cell cycle (PubMed:32666501). Is regulated by MAD2L1: in metaphase the MAD2L1-CDC20-APC/C ternary complex is inactive and in anaphase the CDC20-APC/C binary complex is active in degrading substrates (PubMed:9811605, PubMed:9637688). The CDC20-APC/C complex positively regulates the formation of synaptic vesicle clustering at active zone to the presynaptic membrane in postmitotic neurons (By similarity). CDC20-APC/C-induced degradation of NEUROD2 induces presynaptic differentiation (By similarity). The CDC20- APC/C complex promotes proper dilation formation and radial migration by degrading CCDC41 (By similarity).

Cellular Location Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle pole

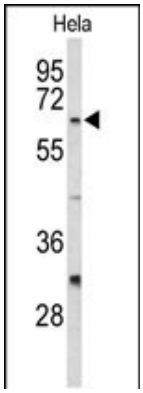
Background

CDC20 is an activating regulatory factor for the APC/C (anaphase promoting complex/cyclosome). It activates the ubiquitination activity of the APC/C. CDC20 confers a strict destruction-box (D-box) dependence on APC. Levels of CDC20, as well as its binding to APC, peak in mitosis and decrease drastically at early G1.

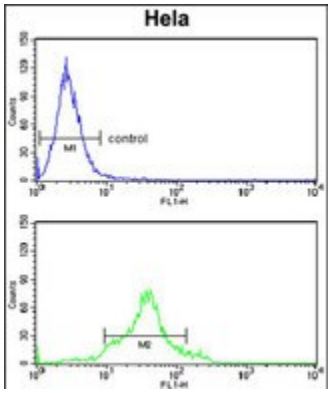
References

Ge S., et.al., Cell Cycle 8:167-171(2009).
Gauci S., et.al., Anal. Chem. 81:4493-4501(2009).

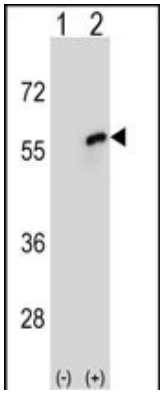
Images



Western blot analysis of CDC20 Antibody (N-term) (Cat. #AP9138a) in Hela cell line lysates (35ug/lane). CDC20 (arrow) was detected using the purified Pab.



CDC20 Antibody (N-term) (Cat. #AP9138a) flow cytometry analysis of Hela cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western blot analysis of CDC20 (arrow) using rabbit polyclonal CDC20 Antibody (N-term) (Cat. #AP9138a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CDC20 gene.