10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Cdc20 Polyclonal Antibody

Catalog # AP68974

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q12834
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54723

Additional Information

Gene ID	991
Other Names	CDC20; Cell division cycle protein 20 homolog; p55CDC
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	CDC20
Function	Substrate-specific adapter and activator of the anaphase promoting complex/cyclosome (APC/C) that confers substrate specificity by binding to substrates and targeting them to the APC/C for ubiquitination and degradation (PubMed:9734353, PubMed:27030811, PubMed:29343641, PubMed:27120157, PubMed:27509861). Essential for activating APC/C in the metaphase/anaphase transition of the cell cycle, targeting the degradation of cyclin B and securin (PubMed:27120157, PubMed:27509861, PubMed:32666501). Recognizes and binds the destruction box (D box), KEB box and ABBA motifs on protein substrates (PubMed:29343641, PubMed:27509861). 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). Component of the mitotic checkpoint complex (MCC), which inhibits APC/C and delays chromosome

segregation until all chromosomes are properly attached to the mitotic spindle (PubMed:27509861). The MCC, which consists of CDC20, MAD2L1/MAD2, BUB1B/BUBR1 and BUB3, is a key player of the spindle assembly checkpoint (PubMed:27509861). The MCC-bound APC/C complex is inactive and this delays the metaphase/anaphase transition (PubMed:9811605, PubMed:9637688, PubMed:27509861). When the spindle assembly checkpoint is silenced, the MCC-APC/C complex recruits the E2 enzyme UBCH10 and triggers the auto-ubiquitination of CDC20 in the MCC, thereby reactivating APC/C for transition into anaphase (PubMed:27509861).

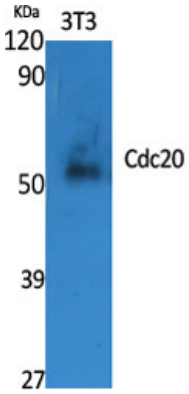
Cellular Location

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

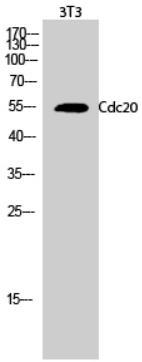
Background

Required for full ubiquitin ligase activity of the anaphase promoting complex/cyclosome (APC/C) and may confer substrate specificity upon the complex. 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. The CDC20-APC/C complex positively regulates the formation of synaptic vesicle clustering at active zone to the presynaptic membrane in postmitotic neurons. CDC20-APC/C-induced degradation of NEUROD2 induces presynaptic differentiation.

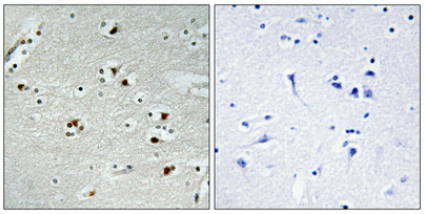
Images



Western Blot analysis of various cells using Cdc20 Polyclonal Antibody diluted at 1：2000



Western Blot analysis of 3T3 cells using Cdc20 Polyclonal Antibody diluted at 1：2000



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.