ARG42680
anti-CDC20 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CDC20
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CDC20
Species	Human
Immunogen	Synthetic peptide corresponding to a sequence of Human CDC20. (QTPTKKEHQKAWALNLNGFDVEEAKILRLSGKPQNAPEGYQNRLKVLYSQKAT)
Conjugation	Un-conjugated
Alternate Names	CDC20A; p55CDC; Cell division cycle protein 20 homolog; bA276H19.3

Application Instructions

Application table

Application	Dilution
FACS	1:150 - 1:500
ICC/IF	1:200 - 1:1000
IHC-P	1:200 - 1:1000
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	HeLa
Observed Size	~ 55 kDa

Properties

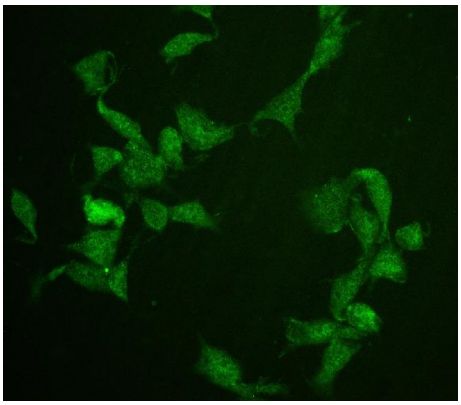
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 4% Trehalose.
Preservative	0.05% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

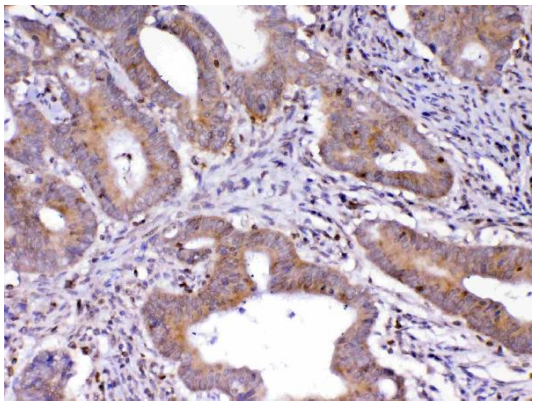
Gene Symbol	CDC20
Gene Full Name	cell division cycle 20
Background	CDC20 appears to act as a regulatory protein interacting with several other proteins at multiple points in the cell cycle. It is required for two microtubule-dependent processes, nuclear movement prior to anaphase and chromosome separation. [provided by RefSeq, Jul 2008]
Function	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. [UniProt]
Calculated Mw	55 kDa
PTM	Acetylated. Deacetylated at Lys-66 by SIRT2; deacetylation enhances the interaction of CDC20 with CDC27, leading to activation of anaphase promoting complex/cyclosome (APC/C). Phosphorylated during mitosis, probably by maturation promoting factor (MPF). Phosphorylated by BUB1 at Ser-41; Ser-72; Ser-92; Ser-153; Thr-157 and Ser-161. Phosphorylated by NEK2. Dephosphorylated by CTDP1. Ubiquitinated and degraded by the proteasome during spindle assembly checkpoint. Deubiquitinated by USP44, leading to stabilize the MAD2L1-CDC20-APC/C ternary complex, thereby preventing premature activation of the APC/C. Ubiquitinated at Lys-490 during prometaphase. Ubiquitination at Lys-485 and Lys-490 has no effect on its ability to bind the APC/C complex. [UniProt]
Cellular Localization	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. [UniProt]

Images



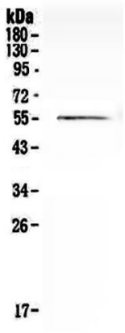
ARG42680 anti-CDC20 antibody ICC/IF image

Immunofluorescence: NIH/3T3 cells were blocked with 10% goat serum and then stained with ARG42680 anti-CDC20 antibody at 2 µg/ml dilution, overnight at 4°C.



ARG42680 anti-CDC20 antibody IHC-P image

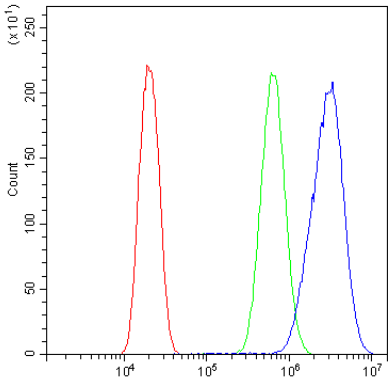
Immunohistochemistry: Paraffin-embedded Human colon cancer tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42680 anti-CDC20 antibody at 1 µg/ml dilution, overnight at 4°C.



HeLa

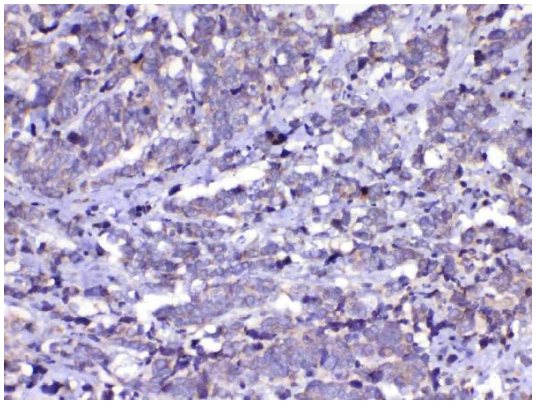
ARG42680 anti-CDC20 antibody WB image

Western blot: 50 µg of sample under reducing condition. HeLa whole cell lysate stained with ARG42680 anti-CDC20 antibody at 0.5 µg/ml dilution, overnight at 4°C.



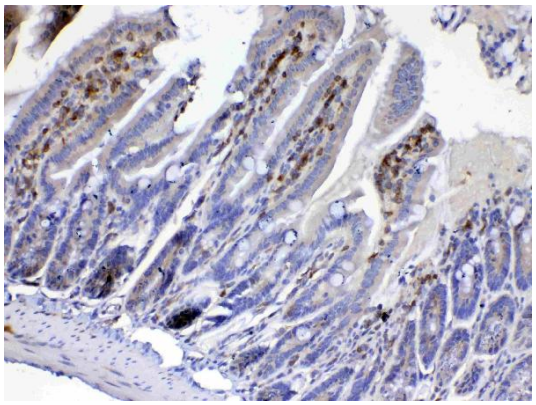
ARG42680 anti-CDC20 antibody FACS image

Flow Cytometry: U2OS cells were blocked with 10% normal goat serum and then stained with ARG42680 anti-CDC20 antibody (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



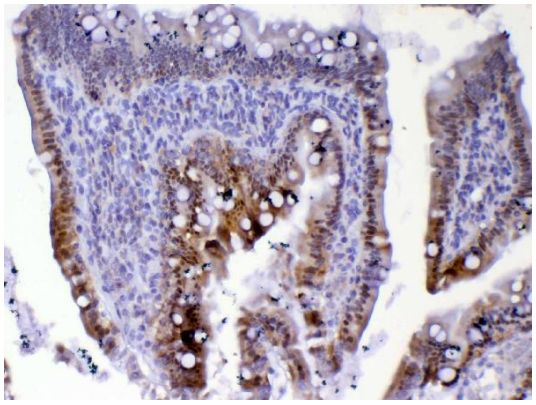
ARG42680 anti-CDC20 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human lung cancer tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42680 anti-CDC20 antibody at 1 µg/ml dilution, overnight at 4°C.



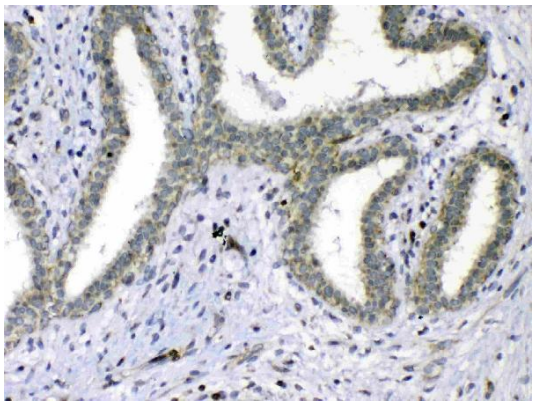
ARG42680 anti-CDC20 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse small intestine tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42680 anti-CDC20 antibody at 1 µg/ml dilution, overnight at 4°C.



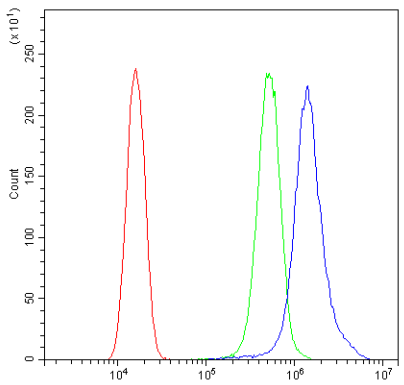
ARG42680 anti-CDC20 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat small intestine tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42680 anti-CDC20 antibody at 1 µg/ml dilution, overnight at 4°C.



ARG42680 anti-CDC20 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human mammary cancer tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42680 anti-CDC20 antibody at 1 µg/ml dilution, overnight at 4°C.



ARG42680 anti-CDC20 antibody FACS image

Flow Cytometry: SiHa cells were blocked with 10% normal goat serum and then stained with ARG42680 anti-CDC20 antibody (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.