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

CDCA5 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58728

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q96FF9
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	27601
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CDCA5
Epitope Specificity	101-200/252
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nuclear.
SIMILARITY	Belongs to the sororin family.
SUBUNIT	Interacts with the APC/C complex (By similarity). Interacts with the chromatin-bound cohesin complex; the interaction is indirect, occurs after DNA replication and requires acetylation of the cohesin component SMC3. Interacts (via the FGF motif) with PDS5A and PDS5B; the interaction is direct and prevents the interaction of PDS5A with WAPAL.
Post-translational modifications	Phosphorylated. Phosphorylation, as cells enter mitosis, disrupts the interaction with PDS5A and relieves the inhibition of WAPAL by CDCA5.Ubiquitinated by the APC/C complex in G1, leading to its degradation (Probable).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Sororin, also designated cell division cycle-associated protein 5 (CDCA5) or p35, functions as a regulator of sister chromatid cohesion during mitosis. It interacts with the APC/C complex and is found in a complex consisting of cohesion components SCC-112, MC1L1, SMC3L1, RAD21 and APRIN. The deduced human and mouse Sororin proteins consist of 252 and 264 amino acid residues, respectively, and both contain a KEN box for APC-dependent ubiquitination. Reserach demonstrates a punctated nuclear distribution of Sororin during interphase and a diffuse distribution throughout the cell during mitosis. There is no apparent concentration of Sororin on chromatin in mitotic cells and Sororin levels decrease in synchronized HeLa cells during interphase. The Sororin gene maps to chromosome 11q12.1.

Additional Information

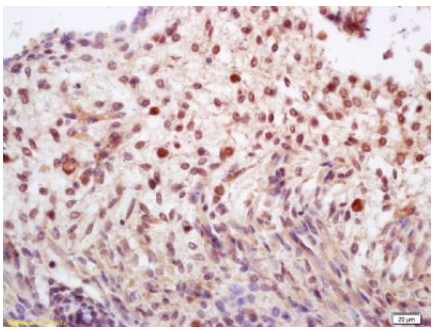
Gene ID	113130

Other Names	Sororin, Cell division cycle-associated protein 5, p35, CDCA5
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=3ug/Test,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

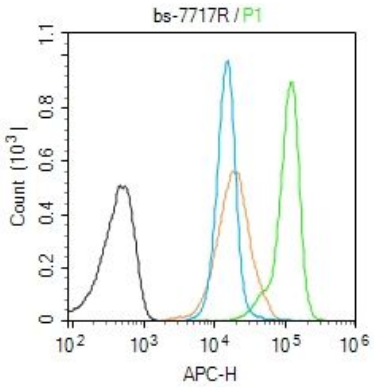
Protein Information

Name	CDCA5
Function	Regulator of sister chromatid cohesion in mitosis stabilizing cohesin complex association with chromatin. May antagonize the action of WAPL which stimulates cohesin dissociation from chromatin. Cohesion ensures that chromosome partitioning is accurate in both meiotic and mitotic cells and plays an important role in DNA repair. Required for efficient DNA double-stranded break repair.
Cellular Location	Nucleus. Chromosome. Cytoplasm Note=Associates with nuclear chromatin from S phase until metaphase and is released in the cytoplasm upon nuclear envelope breakdown

Images



Tissue/cell: Mouse embryos; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation:Anti-CDCA5/Sororin Polyclonal Antibody, Unconjugated(AP58728) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (Black line): Molt4 (Black).
Primary Antibody (green line): Rabbit Anti-CDCA5 antibody (AP58728)
Dilution: 3 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647
Dilution: 3 µg /test.
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30

min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.