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

Anti-NDC80 Antibody

Catalog # AP95971

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	O14777
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	73913

Additional Information

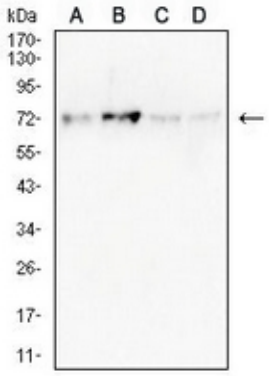
Gene ID	10403
Other Names	HEC; HEC1; KNTC2; Kinetochore protein NDC80 homolog; Highly expressed in cancer protein; Kinetochore protein Hec1; HsHec1; Kinetochore-associated protein 2; Retinoblastoma-associated protein HEC
Target/Specificity	Recombinant fusion protein of human NDC80 expressed in HEK293
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG2a. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

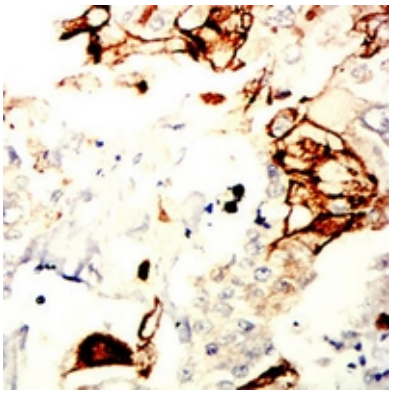
Name	NDC80
Synonyms	HEC, HEC1, KNTC2
Function	Acts as a component of the essential kinetochore-associated NDC80 complex, which is required for chromosome segregation and spindle checkpoint activity (PubMed:12351790, PubMed:14654001, PubMed:14699129, PubMed:15062103, PubMed:15235793, PubMed:15239953, PubMed:15548592, PubMed:16732327, PubMed:30409912, PubMed:9315664). Required for kinetochore integrity and the organization of stable microtubule binding sites in the outer plate of the kinetochore (PubMed:15548592, PubMed:30409912). The NDC80 complex synergistically enhances the affinity of the SKA1 complex for microtubules and may allow the NDC80 complex to track depolymerizing microtubules (PubMed:23085020). Plays a role in chromosome congression and is essential for the end-on attachment of the kinetochores to spindle microtubules (PubMed:23891108, PubMed:25743205).

Cellular Location	Nucleus. Chromosome, centromere, kinetochore. Note=Localizes to kinetochores from late prophase to anaphase (PubMed:14699129) Localizes specifically to the outer plate of the kinetochore (PubMed:14699129).

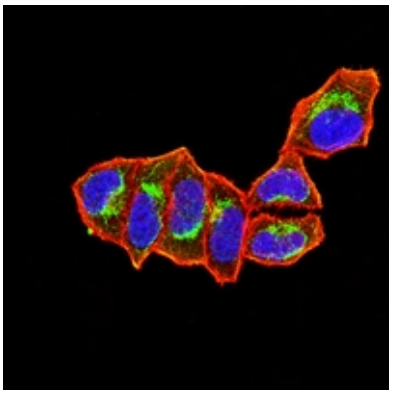
Images



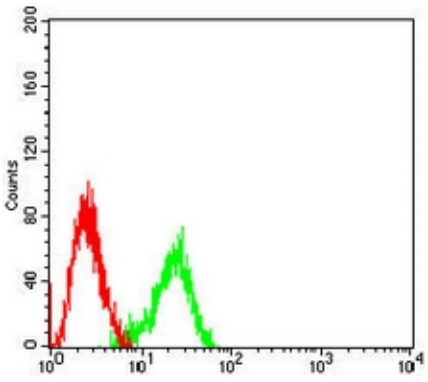
Western blot analysis of NDC80 expression in Hela (A), HepG2 (B), Jurkat (C), K562 (D) whole cell lysates. (Predicted band size: 74 kD; Observed band size: 72 kD)



Immunohistochemical analysis of NDC80 staining in human mammary cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of NDC80 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-NDC80 Antibody (green) and negative control (red).

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