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

Anti-NDC80 Antibody

Catalog # AP51659

Product Information

Application	WB, IF/IC
Primary Accession	O14777
Reactivity	Human, Mouse, Rat, Bovine, Dog, Mk
Host	Rabbit
Clonality	Polyclonal
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	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human NDC80. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, 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

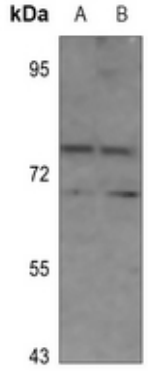
(PubMed:23891108, PubMed:25743205).

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).

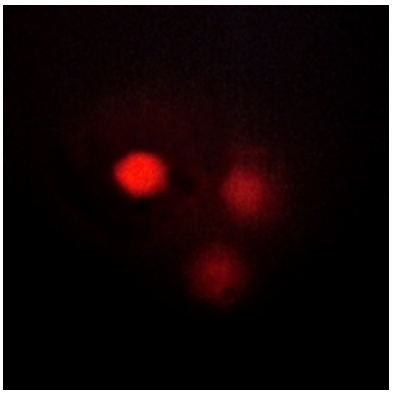
References

Chen Y.,et al.Mol. Cell. Biol. 17:6049-6056(1997).
Chen Y.,et al.J. Biol. Chem. 272:24081-24087(1997).
Zheng L.,et al.Mol. Cell. Biol. 19:5417-5428(1999).
Zheng L.,et al.Mol. Cell. Biol. 20:3529-3537(2000).
Chen Y.,et al.J. Biol. Chem. 277:49408-49416(2002).

Images



Western blot analysis of NDC80 expression in mouse spleen (A), rat spleen (B) whole cell lysates. (Predicted band size: 73 kD; Observed band size: 74 kD)



Immunofluorescent analysis of NDC80 staining in HuvEc 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 a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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