

Goat Anti-HEC1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1523a

Specification

Goat Anti-HEC1 Antibody - Product Information

Application	WB, IHC
Primary Accession	O14777
Other Accession	NP_006092 , 10403
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	73913

Goat Anti-HEC1 Antibody - Additional Information

Gene ID 10403

Other Names

Kinetochores protein NDC80 homolog, Highly expressed in cancer protein, Kinetochores protein Hec1, HsHec1, Kinetochores-associated protein 2, Retinoblastoma-associated protein HEC, NDC80, HEC, HEC1, KNTC2

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-HEC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-HEC1 Antibody - Protein Information

Name NDC80

Synonyms HEC, HEC1, KNTC2

Function

Acts as a component of the essential kinetochores-associated NDC80 complex, which is required for chromosome segregation and spindle checkpoint activity (PubMed:12351790, PubMed:<a

[14654001](http://www.uniprot.org/citations/14654001), PubMed:[14699129](http://www.uniprot.org/citations/14699129), PubMed:[15062103](http://www.uniprot.org/citations/15062103), PubMed:[15235793](http://www.uniprot.org/citations/15235793), PubMed:[15239953](http://www.uniprot.org/citations/15239953), PubMed:[15548592](http://www.uniprot.org/citations/15548592), PubMed:[16732327](http://www.uniprot.org/citations/16732327), PubMed:[30409912](http://www.uniprot.org/citations/30409912), PubMed:[9315664](http://www.uniprot.org/citations/9315664)). Required for kinetochore integrity and the organization of stable microtubule binding sites in the outer plate of the kinetochore (PubMed:[15548592](http://www.uniprot.org/citations/15548592), PubMed:[30409912](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23085020)). Plays a role in chromosome congression and is essential for the end-on attachment of the kinetochores to spindle microtubules (PubMed:[23891108](http://www.uniprot.org/citations/23891108), PubMed:[25743205](http://www.uniprot.org/citations/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).

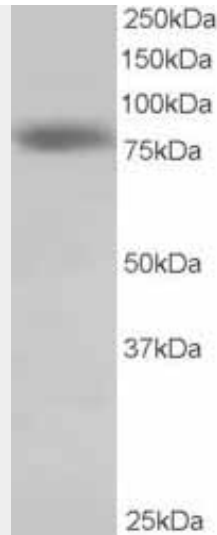
Goat Anti-HEC1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

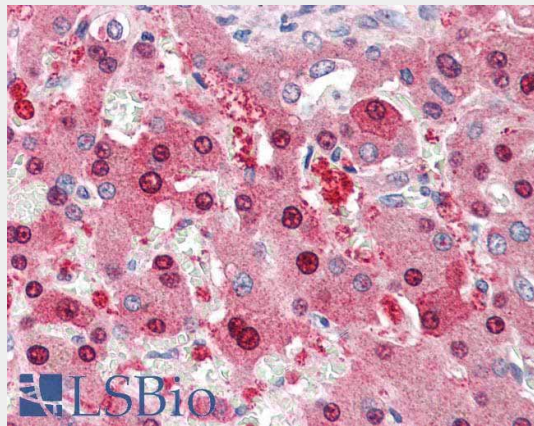
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-HEC1 Antibody - Images

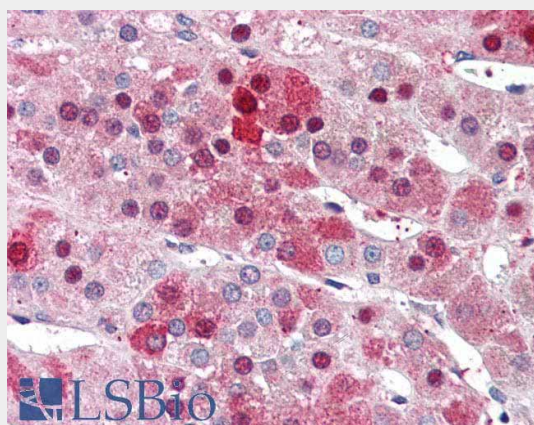




AF1523a staining (0.5 $\mu\text{g/ml}$) of Hela lysate (RIPA buffer, 35 μg total protein per lane). Primary incubated for 1 hour. Detected by chemiluminescence.



AF1523a (5 $\mu\text{g/ml}$) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1523a (5 $\mu\text{g/ml}$) staining of paraffin embedded Human Adrenal Gland. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-HEC1 Antibody - Background

HEC is one of several proteins involved in spindle checkpoint signaling. This surveillance mechanism assures correct segregation of chromosomes during cell division by detecting unaligned

chromosomes and causing prometaphase arrest until the proper bipolar attachment of chromosomes is achieved.

Goat Anti-HEC1 Antibody - References

Centrosome-related genes, genetic variation, and risk of breast cancer. Olson JE, et al. Breast Cancer Res Treat, 2010 May 28. PMID 20508983.

siRNA-mediated knockdown against CDCA1 and KNTC2, both frequently overexpressed in colorectal and gastric cancers, suppresses cell proliferation and induces apoptosis. Kaneko N, et al. Biochem Biophys Res Commun, 2009 Dec 25. PMID 19878654.

Hec1 contributes to mitotic centrosomal microtubule growth for proper spindle assembly through interaction with Hice1. Wu G, et al. Mol Biol Cell, 2009 Nov. PMID 19776357.

PinX1 is a novel microtubule-binding protein essential for accurate chromosome segregation. Yuan K, et al. J Biol Chem, 2009 Aug 21. PMID 19553660.

Mitotic control of kinetochore-associated dynein and spindle orientation by human Spindly. Chan YW, et al. J Cell Biol, 2009 Jun 1. PMID 19468067.