

CPTC-CDCA8-1 (CAB079955)

Uniprot ID: [Q53HL2](#)

Protein name: BOREA_HUMAN

Full name: Borealin

Function: Component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. Major effector of the TTK kinase in the control of attachment-error-correction and chromosome alignment.

Subcellular location:

Nucleus > Nucleolus (*experimental evidence*)

Cytoplasm (*experimental evidence*)

Cytoplasm > Cytoskeleton > Spindle (*experimental evidence*)

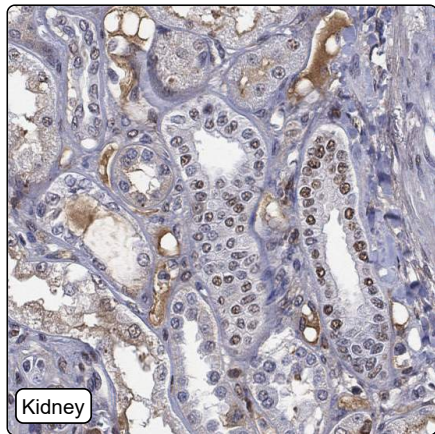
Chromosome > Centromere (*experimental evidence*)

NOTE: Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis. Colocalizes with SENP3 in the nucleolus in interphase cells.

Protein existence: Experimental evidence at protein level

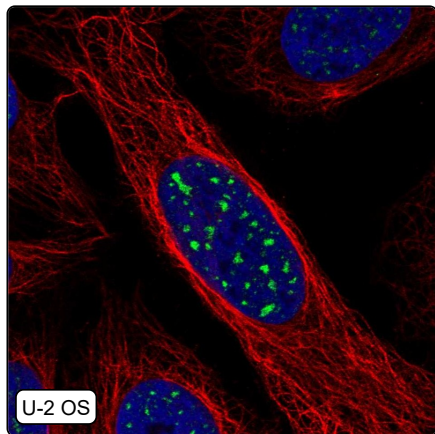
Comment:

Immunohistochemistry



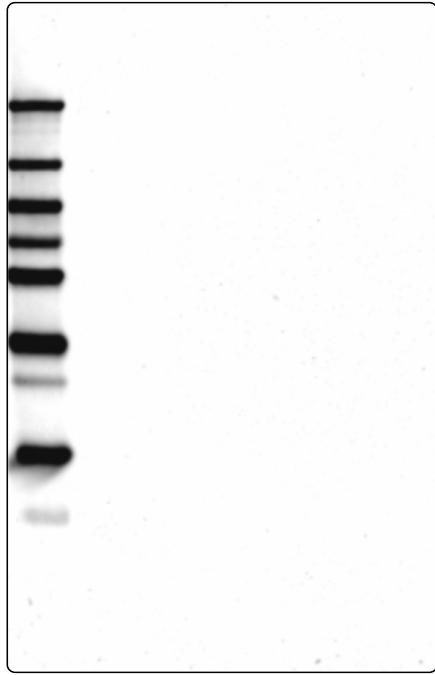
IHC protocol:	HIER pH6, Dilution 1:250
IHC test staining:	Weak nuclear positivity in several tissues. Additional positivity in plasma.
Literature conformance:	Partly consistent with extensive gene/protein characterization data
Literature significance:	
RNA consistency:	Mainly not consistent with RNA expression data
IHC Sibling similarity:	Other antibody shows partly similar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Unspecific staining, Not consistent with RNA

Immunofluorescence



IF Overlay:	antibody (green), anti-tubuline (red) and DAPI (blue)
IF main location:	Nuclear speckles - 12: Uncertain (auto)
IF additional location:	
IF Antibody score:	Failed IF
IF in A549:	Negative
IF in HEK 293:	Negative
IF in U-2 OS:	Nuc speckles

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	31, 31
WB Validation:	Uncertain (No bands detected.)