abcam

Product datasheet

Anti-Borealin/CDCA8 antibody ab67126

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Overview

Product name	Anti-Borealin/CDCA8 antibody
Description	Mouse polyclonal to Borealin/CDCA8
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Full length native Borealin/CDCA8 (purified) (Human)
Positive control	Borealin/CDCA8 transfected 293T cell lysate

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Constituent: 2.68% PBS
Purity	Protein G purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab67126** in the following tested applications.

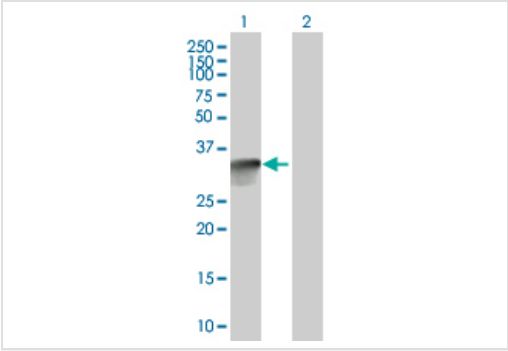
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★☆☆☆	1/500 - 1/1000. Detects a band of approximately 31 kDa (predicted molecular weight: 31 kDa).
ICC/IF	★★★☆☆	Use at an assay dependent dilution. PFA fixation is necessary

Target

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. In the complex, it may be required to direct the CPC to centromeric DNA. Major effector of the TTK kinase in the control of attachment-error-correction and chromosome alignment.
Sequence similarities	Belongs to the borealin family.
Developmental stage	Cell-cycle regulated. Increases during G2/M phase and then reduces after exit from M phase.
Domain	The C-terminal region (aa 207-280) represents the dimerization motif.
Post-translational modifications	Phosphorylated by TTK, essentially at Thr-88, Thr94, Thr-169 and Thr-230. Sumoylated by UBE2I and RANBP2. Desumoylated by SENP3 through the removal of SUMO2 and SUMO3.
Cellular localization	Nucleus > nucleolus. Cytoplasm. Cytoplasm > cytoskeleton > spindle. Chromosome > centromere. 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.

Images



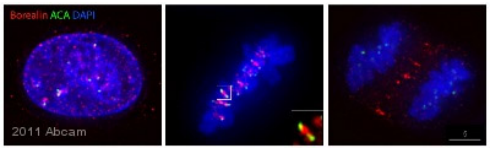
Western blot - Anti-Borealin/CDCA8 antibody (ab67126)

All lanes : Anti-Borealin/CDCA8 antibody (ab67126) at 1/500 dilution

Lane 1 : Borealin/CDCA8 transfected 293T cell lysate
Lane 2 : Untransfected 293T cell lysate

Secondary
All lanes : Goat anti mouse IgG (H&L)-HRP conjugate secondary antibody at 1/2500 dilution

Predicted band size: 31 kDa
Observed band size: 31 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Borealin/CDCA8 antibody (ab67126)
Image courtesy of an anonymous Abreview.

ab67126 staining Borealin/CDCA8 in HeLa cells by Immunocytochemistry/ Immunofluorescence. The cells were fixed in paraformaldehyde, permeabilised in 0.1% Triton and then blocked using 10% BSA for 1 hour at 23°C. Samples were then incubated with primary antibody at 1/200 for 1 hour at 23°C. The secondary antibody used was a mouse IgG conjugated to Alexa Fluor® 594 (red) used at a 1/300 dilution.
When fixed in PFA, the antibody stains the centromere in metaphase and the midzone in anaphase, as expected for Borealin, a CPC protein. Borealin (red), Kinetochores (green), DAPI (blue).

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