

# Bora Antibody

Catalog # ASC10882

## Product Information

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<b>Application</b>	WB, IF, E, IHC-P
<b>Primary Accession</b>	<a href="#">Q6PGQ7</a>
<b>Other Accession</b>	<a href="#">Q6PGQ7</a> , <a href="#">74737659</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	61203
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	Bora antibody can be used for detection of Bora by Western blot at 1-2 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL.

## Additional Information

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<b>Gene ID</b>	79866
<b>Other Names</b>	Protein aurora borealis, HsBora, BORA, C13orf34
<b>Target/Specificity</b>	C13orf34;
<b>Reconstitution &amp; Storage</b>	Bora antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
<b>Precautions</b>	Bora Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	BORA
<b>Synonyms</b>	C13orf34
<b>Function</b>	Required for the activation of AURKA at the onset of mitosis.

## Background

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Bora Antibody: Bora (Protein aurora borealis) is a key activator of Aurora Related Protein Kinase A (ARK-1), which is a centrosome-associated serine/threonine kinase that regulates centrosome maturation, bipolar

spindle assembly and chromosome segregation during mitosis. Bora is localized to the nucleus until mitosis is initiated, then translocates to the cytoplasm in a Cdc2 dependent manner. Activation of Cdc2 initiates the release of Bora into the cytoplasm where it can bind and activate ARK-1. PLK1 (polo-like kinase-1) interacts with Bora to control the accessibility of its activation loop for phosphorylation and activation by ARK-1. Bora and ARK-1 cooperatively activate PLK1 and control mitotic entry. Bora mutants result in multipolar spindles in mitosis identical to those observed when ARK-1 function is blocked. Thus, the ARK1-Bora-PLK1 regulatory circuit in mammalian cells elucidates a key mechanism in cell cycle regulation. At least three isoforms of Bora are known to exist.

## References

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Berdnik D and Knoblich JA. Drosophila Aurora A is required for centrosome maturation and Actin-dependent asymmetric protein localization during mitosis. *Curr. Biol.*2002; 12:640-647.

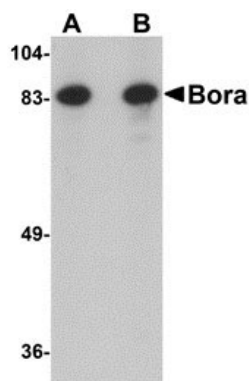
Wiese C and O'Brien LL. What's so Bor(a)ing about Aurora A activation? *Dev. Cell*2006; 11:133-134.

Hutterer A, Berdnik D, Wirtz-Peitz F, et al. Mitotic activation of the kinase Aurora A requires its binding partner Bora. *Dev. Cell*2006; 11:147-157.

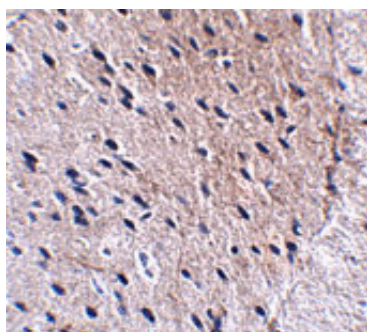
Fu J, Bian M, Jiang Q, et al.. Roles of Aurora kinases in mitosis and tumorigenesis. *Mol. Cancer Res.*2007; 5:1-10.

## Images

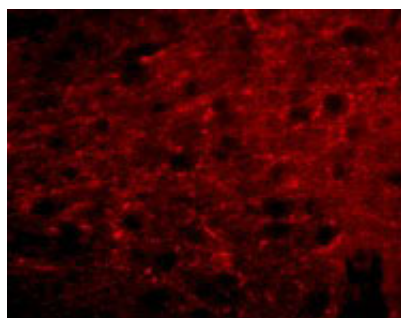
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Western blot analysis of Bora in Jurkat cell lysate with Bora antibody at (A) 1 and (B) 2  $\mu$ g/mL.



Immunohistochemistry of Bora in mouse brain tissue with Bora antibody at 2.5  $\mu$ g/mL.



Immunofluorescence of Bora in Mouse Brain cells with Bora antibody at 20  $\mu$ g/mL.