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Bora Antibody

Catalog # ASC10882

Product Information

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

Additional Information

Gene ID	79866
Other Names	Protein aurora borealis, HsBora, BORA, C13orf34
Target/Specificity	C13orf34;
Reconstitution & Storage	Bora antibody can be stored at 4℃ for three months and -20℃, 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.
Precautions	Bora Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BORA
Synonyms	C13orf34
Function	Required for the activation of AURKA at the onset of mitosis.

Background

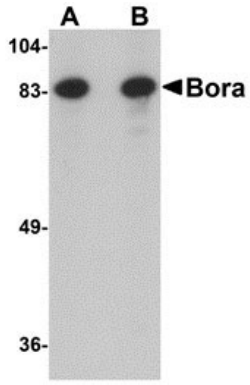
Bora Antibody: Bora (Protein aurora borealis) is a key activator of Aurora Related Protein Kinase A (ARK-1), which is a centrosome-associated serine/threonine kinase that regulates centrosome maturation, bipolar

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.

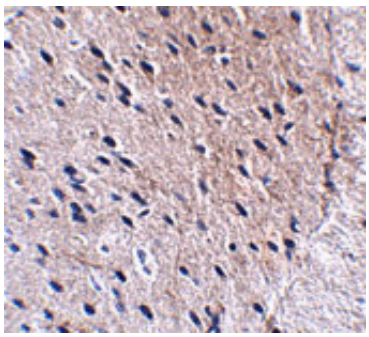
References

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. Cell2006; 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. Cell2006; 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.

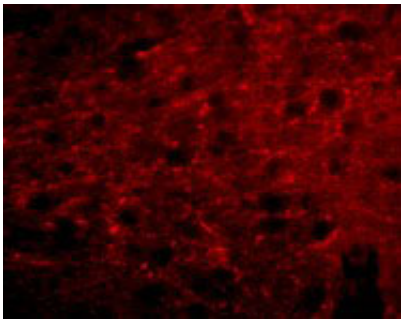
Images



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



Immunohistochemistry of Bora in mouse brain tissue with Bora antibody at 2.5 µg/mL.



Immunofluorescence of Bora in Mouse Brain cells with Bora antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.