

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Bora in direct ELISAs and Western blots.                                                                                                                                                                                                                      |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 694746                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Bora<br>Gly2-Ala180<br>Accession # Q6PGQ7                                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Bora (Aurora borealis; also C13orf34) is a 61 kDa member of the Bora family of proteins. It is ubiquitously expressed, and plays a key role in cell cycle progression. Plk1 (polo-like kinase-1) is a phosphorylase that is important to the cell during the G2/M transition and mitosis. Its activity is initially regulated by Aurora-A, which phosphorylates and activates Plk1 on Thr210. Bora, Aurora-A and Plk1 all appear to form a complex during G2. Bora predisposes Plk1 to the actions of Aurora-A. Once activated by Aurora-A, Plk1 drives the mitotic mechanism, which includes a third-party phosphorylation of Bora. This initiates BORA dissociation from Aurora-A with subsequent ubiquitination and degradation. Human Bora is 559 amino acids (aa) in length. It contains a Ser-rich region (aa 188-278) and at least eight utilized Ser phosphorylation sites. Phosphorylation may increase the SDS-PAGE MW of Bora to 75-85 kDa. There is one potential alternative start site that lies 60 aa upstream of the standard start site, and a second splice variant the shows a 17 aa substitution for aa 1-87. Over aa 2-180, human Bora shares 84% aa identity with mouse Bora.

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