

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Bora in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 694730
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Bora Gly2-Ala180 Accession # Q6PGQ7
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	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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