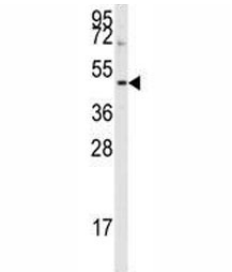
Aurora B Antibody (F50224)

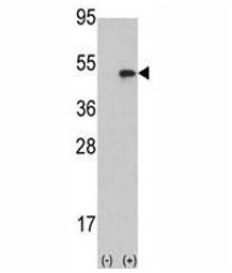
Catalog No.	Formulation	Size
F50224-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50224-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

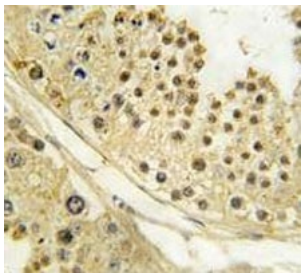
Availability	1-3 business days
Species Reactivity	Human, Mouse, Primate, Rat
Format	Purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	Q96GD4
Applications	Western Blot : 1:1000 IHC (Paraffin) : 1:50-1:100
Limitations	This Aurora B antibody is available for research use only.



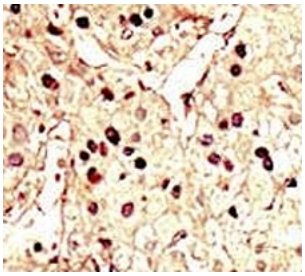
Western blot analysis of Aurora B antibody and HepG2 lysate. Predicted molecular weight: 39-45 kDa



Western blot analysis of Aurora B antibody and 293 cell lysate (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the AURKB gene (2). Predicted molecular weight: 39-45 kDa



IHC analysis of FFPE human testis tissue stained with Aurora B antibody



IHC analysis of FFPE human hepatocarcinoma tissue stained with the Aurora B antibody

Description

Serine/threonine-protein kinase 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. Involved in the bipolar attachment of spindle microtubules to kinetochores and is a key regulator for the onset of cytokinesis during mitosis. Required for central/midzone spindle assembly and cleavage furrow formation. Key component of the cytokinesis checkpoint, a process required to delay abscission to prevent both premature resolution of intercellular chromosome bridges and accumulation of DNA damage: phosphorylates CHMP4C, leading to retain abscission-competent VPS4 (VPS4A and/or VPS4B) at the midbody ring until abscission checkpoint signaling is terminated at late cytokinesis. AURKB phosphorylates the CPC complex subunits BIRC5/survivin, CDCA8/borealin and INCENP. Phosphorylation of INCENP leads to increased AURKB activity. Other known AURKB substrates involved in centromeric functions and mitosis are CENPA, DES/desmin, GPAF, KIF2C, NSUN2, RACGAP1, SEPT1, VIM/vimentin, GSG2/Haspin, and histone H3. A positive feedback loop involving GSG2 and AURKB contributes to localization of CPC to centromeres. Phosphorylation of VIM controls vimentin filament segregation in cytokinetic process, whereas histone H3 is phosphorylated at 'Ser-10' and 'Ser-28' during mitosis (H3S10ph and H3S28ph, respectively). A positive feedback between GSG2 and AURKB contributes to CPC localization. AURKB is also required for kinetochore localization of BUB1 and SGOL1. Phosphorylation of p53/TP53 negatively regulates its transcriptional activity. Key regulator of active promoters in resting B- and T-lymphocytes: acts by mediating phosphorylation of H3S28ph at active promoters in resting B-cells, inhibiting RNF2/RING1B-mediated ubiquitination of histone H2A and enhancing binding and activity of the USP16 deubiquitinase at transcribed genes. [UniProt]

Application Notes

Titration of the Aurora B antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 6-35 from the human protein was used as the immunogen for this Aurora B antibody.

Storage

Aliquot the Aurora B antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

ARK, STK12