Anti-Aurora A Antibody [PSH22-00]

HA724269

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, FC, IP
Molecular Wt:	Predicted band size: 46 kDa
Clone number:	PSH22-00

Description: Aurora kinase A also known as serine/threonine-protein kinase 6 is an enzyme that in humans is encoded by the AURKA gene. Aurora A is a member of a family of mitotic serine/threonine kinases. It is implicated with important processes during mitosis and meiosis whose proper function is integral for healthy cell proliferation. Aurora A is activated by one or more phosphorylations and its activity peaks during the G2 phase to M phase transition in the cell cycle.

Immunogen: Recombinant protein within human Aurora A aa 1-150.

Positive control: HeLa cell lysate, HepG2 cell lysate, Jurkat cell lysate, HEK-293 cell lysate, BxPC-3 cell lysate, HepG2, HeLa cells treated with 100ng/mL Nocodazole for 18 hours.

Subcellular location: Cytoplasm, Cytoskeleton, Nucleus, Cell projection, Microtubule.

Database links: SwissProt: O14965 Human

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:2,000
FC	1:1,000
IP	1-2μg/sample

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

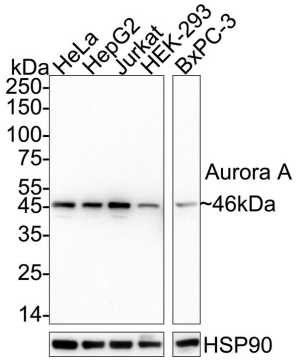

Fig1: Western blot analysis of Aurora A on different lysates with Rabbit anti-Aurora A antibody (HA724269) at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: HepG2 cell lysate
Lane 3: Jurkat cell lysate
Lane 4: HEK-293 cell lysate
Lane 5: BxPC-3 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 46 kDa
Observed band size: 46 kDa

Exposure time: 20 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA724269) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

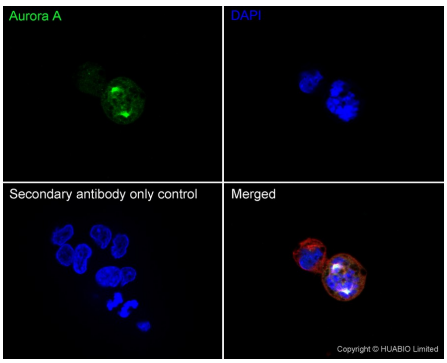

Fig2: Immunocytochemistry analysis of HepG2 cells labeling Aurora A with Rabbit anti-Aurora A antibody (HA724269) at 1/2,000 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Aurora A antibody (HA724269) at 1/2,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

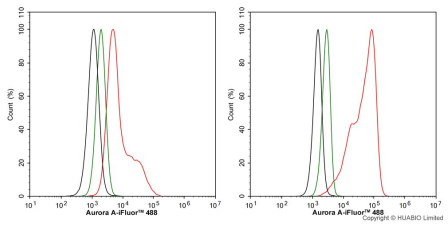

Fig3: Flow cytometric analysis of HeLa cells untreated (left) / treated with 100ng/mL Nocodazole for 18 hours (right) labeling Aurora A.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA724269, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

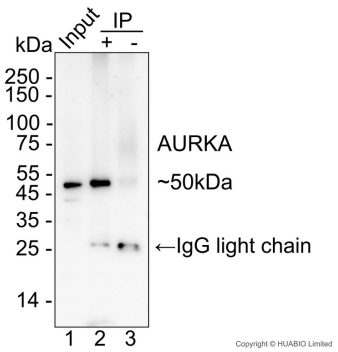

Fig4: Aurora A was immunoprecipitated from 0.2 mg HepG2 cell lysate with HA724269 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA724269 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: HepG2 cell lysate (input)
Lane 2: HA724269 IP in HepG2 cell lysate
Lane 3: Rabbit IgG instead of HA724269 in HepG2 cell lysate

Blocking/Dilution buffer: primary antibody dilution (K1803)
Exposure time: 1 minute 50 seconds; ECL: K1801

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Zheng D et al. Emerging roles of Aurora-A kinase in cancer therapy resistance. Acta Pharm Sin B. 2023 Jul
2. Nishimura Y et al. Aurora A and AKT Kinase Signaling Associated with Primary Cilia. Cells. 2021 Dec