Anti-MKLP1 Antibody [SY02-74] - BSA and Azide free

HA750129

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell
Molecular Wt:	Predicted band size: 110 kDa
Clone number:	SY02-74

Description: KIF23 (also known as Kinesin-6, CHO1/MKLP1, C. elegans ZEN-4 and Drosophila Pavarotti) is a member of kinesin-like protein family. This family includes microtubule-dependent molecular motors that transport organelles within cells and move chromosomes during cell division. This protein has been shown to cross-bridge antiparallel microtubules and drive microtubule movement in vitro. Alternate splicing of this gene results in two transcript variants encoding two different isoforms, better known as CHO1, the larger isoform and MKLP1, the smaller isoform. KIF23 is a plus-end directed motor protein expressed in mitosis, involved in the formation of the cleavage furrow in late anaphase and in cytokinesis. KIF23 is part of the centralspindlin complex that includes PRC1, Aurora B and 14-3-3 which cluster together at the spindle midzone to enable anaphase in dividing cells. In neuronal development KIF23 is involved in the transport of minus-end distal microtubules into dendrites and is expressed exclusively in cell bodies and dendrites.

Immunogen: Synthetic peptide within Human MKLP1 aa 801-850 / 960.

Positive control: A549 cell lysates, RAW264.7 cell lysates, A549.

Subcellular location: Cytoplasm, Nucleus, Midbody.

Database links: SwissProt: Q02241 Human
Unigene: 259374 Mouse | 63734 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:50-1:200

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

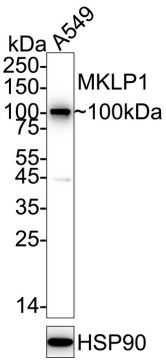

Fig1: Western blot analysis of MKLP1 on A549 cell lysates with Rabbit anti-MKLP1 antibody (HA750129) at 1/500 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 110 kDa
Observed band size: 100 kDa

Exposure time: 3 minutes; 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 (HA750129) at 1/500 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.

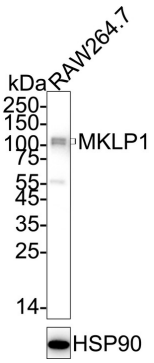

Fig2: Western blot analysis of MKLP1 on RAW264.7 cell lysates with Rabbit anti-MKLP1 antibody (HA750129) at 1/500 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 110 kDa
Observed band size: 100/110 kDa

Exposure time: 3 minutes; ECL: K1802;

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 (HA750129) at 1/500 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.

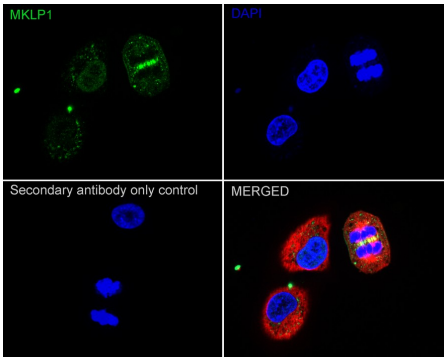

Fig3: Immunocytochemistry analysis of A549 cells labeling MKLP1 with Rabbit anti-MKLP1 antibody (HA750129) at 1/100 dilution.

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-MKLP1 antibody (HA750129) at 1/100 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.

Background References

1. Bailey, JK. et al. 2015. WD repeat-containing protein 5 (WDR5) localizes to the midbody and regulates abscission. The Journal of biological chemistry. 290: 8987-9001.
2. Okamoto, A. et al. 2015. Phosphorylation of CHO1 by Lats1/2 regulates the centrosomal activation of LIMK1 during cytokinesis. Cell cycle (Georgetown, Tex.). 14: 1568-82.