

# ARK-2 (H-75): sc-25426

## BACKGROUND

Aurora related kinase-1 (ARK-1, STK15, Aurora2, Aik1) and -2 (ARK-2, STK12, Aurora1) are centrosome-associated serine/threonine kinases that regulate centrosome separation, bipolar spindle assembly and chromosome segregation during mitosis. ARK-1 and -2 are expressed in the nucleus and localize to distinct portions of mitotic machinery such as the centrosome, spindle poles (ARK-1) and midbody (ARK-2) during mitosis. ARK-1 and -2 transcripts are present at high levels in human thymus and fetal liver. ARK-1 protein has elevated expression in colon carcinoma lines (HT-29, SNU-C2B, COLO 205, SW480, 837 and 948) and accumulates during metaphase in HeLa cells. ARK-2 protein levels are maximal during both S and G<sub>2</sub>/M phases, whereas ARK-1 protein is degraded after G<sub>2</sub>/M via the ubiquitin-proteasome pathway. ARK-2 has a unique genetic locus relative to ARK-1, suggesting that these two kinases, with oncogenic potential, have different roles in cell cycle progression.

## CHROMOSOMAL LOCATION

Genetic locus: AURKB (human) mapping to 17p13.1; Aurkb (mouse) mapping to 11 B3.

## SOURCE

ARK-2 (H-75) is a rabbit polyclonal antibody raised against amino acids 1-75 mapping at the N-terminus of ARK-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ARK-2 (H-75) is recommended for detection of ARK-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ARK-2 (H-75) is also recommended for detection of ARK-2 in additional species, including bovine and porcine.

Suitable for use as control antibody for ARK-2 siRNA (h): sc-43531, ARK-2 siRNA (m): sc-43532, ARK-2 shRNA Plasmid (h): sc-43531-SH, ARK-2 shRNA Plasmid (m): sc-43532-SH, ARK-2 shRNA (h) Lentiviral Particles: sc-43531-V and ARK-2 shRNA (m) Lentiviral Particles: sc-43532-V.

Molecular Weight of ARK-2: 39 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, mouse thymus extract: sc-2406 or ARK-2 (m): 293T Lysate: sc-124993.

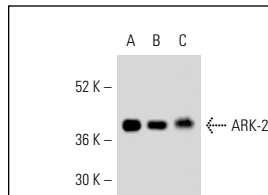
## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

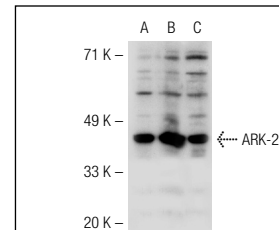
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



ARK-2 (H-75): sc-25426. Western blot analysis of ARK-2 expression in non-transfected 293T: sc-117752 (A), mouse ARK-2 transfected 293T: sc-124993 (B) and K-562 (C) whole cell lysates.



ARK-2 (H-75): sc-25426. Western blot analysis of ARK-2 expression in NIH/3T3 whole cell lysate (A) and mouse thymus (B) and rat thymus (C) tissue extracts.

## SELECT PRODUCT CITATIONS

- Evans, R.P., et al. 2008. The selective Aurora B kinase inhibitor AZD1152 is a potential new treatment for multiple myeloma. *Br. J. Haematol.* 140: 295-302.
- Uzbekova, S., et al. 2008. Spatio-temporal expression patterns of Aurora kinases A, B, and C and cytoplasmic polyadenylation-element-binding protein in bovine oocytes during meiotic maturation. *Biol. Reprod.* 78: 218-233.
- Lee, S.H., et al. 2010. Mad2 inhibits the mitotic kinesin MKlp2. *J. Cell Biol.* 191: 1069-1077.
- Kim, H.J., et al. 2011. Down-regulation of Aurora B kinase induces cellular senescence in human fibroblasts and endothelial cells through a p53-dependent pathway. *FEBS Lett.* 585: 3569-3576.
- Jha, H.C., et al. 2015. EBNA3C regulates p53 through induction of Aurora kinase B. *Oncotarget* 6: 5788-5803.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **ARK-2 (A-3): sc-393357** or **ARK-2 (13E8A7): sc-65987**, our highly recommended monoclonal alternatives to ARK-2 (H-75).