

# KID (B-9): sc-390640

## BACKGROUND

KID (kinesin-like DNA-binding protein) is a nuclear protein that belongs to the kinesin-like protein family. KID is involved in spindle formation and the movements of chromosomes during mitosis and meiosis by binding to microtubules in addition to DNA. The N-terminal half of KID contains the kinesin-like motor domain; there is a helix-hairpin-helix DNA-binding domain at its C-terminus. It has been reported that the subcellular localization of KID changes dramatically during cell division.

## CHROMOSOMAL LOCATION

Genetic locus: KIF22 (human) mapping to 16p11.2; Kif22 (mouse) mapping to 7 F3.

## SOURCE

KID (B-9) is a mouse monoclonal antibody raised against amino acids 42-321 mapping near the N-terminus of KID of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KID (B-9) is available conjugated to agarose (sc-390640 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390640 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390640 PE), fluorescein (sc-390640 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390640 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390640 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390640 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390640 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390640 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390640 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

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

## APPLICATIONS

KID (B-9) is recommended for detection of KID of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for KID siRNA (h): sc-44350, KID siRNA (m): sc-45228, KID siRNA (r): sc-156170, KID shRNA Plasmid (h): sc-44350-SH, KID shRNA Plasmid (m): sc-45228-SH, KID shRNA Plasmid (r): sc-156170-SH, KID shRNA (h) Lentiviral Particles: sc-44350-V, KID shRNA (m) Lentiviral Particles: sc-45228-V and KID shRNA (r) Lentiviral Particles: sc-156170-V.

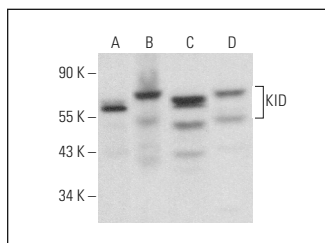
Molecular Weight of KID: 66 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HL-60 nuclear extract: sc-2147 or Ramos cell lysate: sc-2216.

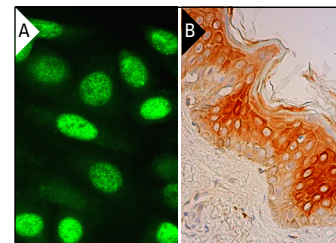
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



KID (B-9): sc-390640. Western blot analysis of KID expression in HeLa (A) and HL-60 (B) nuclear extracts and Ramos (D) whole cell lysates.



KID (B-9): sc-390640. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes (B).

## SELECT PRODUCT CITATIONS

1. Risteski, P., et al. 2022. Length-dependent poleward flux of sister kinetochore fibers promotes chromosome alignment. *Cell Rep.* 40: 111169.

## RESEARCH USE

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

## PROTOCOLS

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

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA