

KID (S-18): sc-30456

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.

REFERENCES

1. Tokai, N., et al. 1996. KID, a novel kinesin-like DNA binding protein, is localized to chromosomes and the mitotic spindle. *EMBO J.* 15: 457-467.
2. Song, J., et al. 1998. Human genes for KNSL4 and MAZ are located close to one another on chromosome 16p11.2. *Genomics* 52: 374-377.
3. Germani, A., et al. 2000. SIAH-1 interacts with a Tubulin and degrades the kinesin KID by the proteasome pathway during mitosis. *Oncogene* 19: 5997-6006.
4. Funabiki, H., et al. 2000. The *Xenopus* chromokinesin Xkid is essential for metaphase chromosome alignment and must be degraded to allow anaphase chromosome movement. *Cell* 102: 411-424.
5. Yajima, J., et al. 2003. The human chromokinesin KID is a plus end-directed microtubule-based motor. *EMBO J.* 22: 1067-1074.
6. Shiroguchi, K., et al. 2003. The second microtubule-binding site of monomeric KID enhances the microtubule affinity. *J. Biol. Chem.* 278: 22460-22465.
7. Tahara, K., et al. 2008. Importin β and the small guanosine triphosphatase Ran mediate chromosome loading of the human chromokinesin Kid. *J. Cell Biol.* 180: 493-506.
8. SWISS-PROT/TrEMBL (Q14807). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

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

SOURCE

KID (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KID of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-30456 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

KID (S-18) is recommended for detection of Kinesin-like DNA-binding protein of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

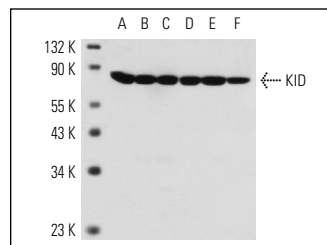
KID (S-18) is also recommended for detection of Kinesin-like DNA-binding protein in additional species, including equine, canine, bovine and porcine.

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

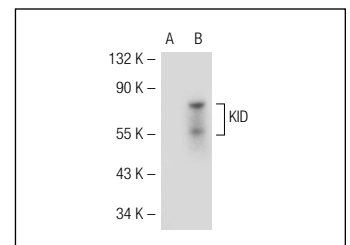
Molecular Weight of KID: 66 kDa.

Positive Controls: NIH/3T3 + PMA nuclear extract: sc-2125, HeLa nuclear extract: sc-2120 or KID (h): 293T Lysate: sc-114788.

DATA



KID (S-18): sc-30456. Western blot analysis of KID expression in NIH/3T3 (A), HeLa (B), MCF7 (C), CCRF-CEM (D), Jurkat (E) and HL-60 (F) nuclear extracts.



KID (S-18): sc-30456. Western blot analysis of KID expression in non-transfected: sc-117752 (A) and human KID transfected: sc-114788 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **KID (B-9): sc-390640** or **KID (E-3): sc-390533**, our highly recommended monoclonal alternatives to KID (S-18).