SANTA CRUZ BIOTECHNOLOGY, INC.

KIN17 (K58): sc-32769

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The KIN17 protein binds to bent or curved double-stranded DNA fragments found at illegitimate recombination sites. KIN17 is ubiquitously expressed with the highest levels of expression in muscle, heart and testis. Low doses of ionizing radiation increase KIN17 expression in mammalian cells. In keratinocytes, KIN17 expression increases during periods of hyperproliferation. UVC irradiation also increases KIN17 expression when functional XPA and XPC proteins are present. Antisense studies indicate that a decrease in KIN17 correlates with a decrease in cell proliferation and an accumulation of cells in early and mid-S phase. SV40-transformed fibroblasts overexpress KIN17, which interacts with Large T antigen and reduces T-antigen-dependent DNA replication. The gene encoding human KIN17 maps to chromosome 10p14.

CHROMOSOMAL LOCATION

Genetic locus: KIN (human) mapping to 10p14; Kin (mouse) mapping to 2 A1.

SOURCE

KIN17 (K58) is a mouse monoclonal antibody recognizes a protein sequence stretching over RecA homologous domain (central domain of the KIN17 protein).

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-32769 X, 200 µg/0.1 ml.

KIN17 (K58) is available conjugated to agarose (sc-32769 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32769 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32769 PE), fluorescein (sc-32769 FITC), Alexa Fluor® 488 (sc-32769 AF488), Alexa Fluor® 546 (sc-32769 AF546), Alexa Fluor® 594 (sc-32769 AF594) or Alexa Fluor® 647 (sc-32769 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32769 AF680) or Alexa Fluor® 790 (sc-32769 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KIN17 (K58) is recommended for detection of KIN17 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 flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for KIN17 siRNA (h): sc-45958, KIN17 siRNA (m): sc-45959, KIN17 shRNA Plasmid (h): sc-45958-SH, KIN17 shRNA Plasmid (m): sc-45959-SH, KIN17 shRNA (h) Lentiviral Particles: sc-45958-V and KIN17 shRNA (m) Lentiviral Particles: sc-45959-V.

KIN17 (K58) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

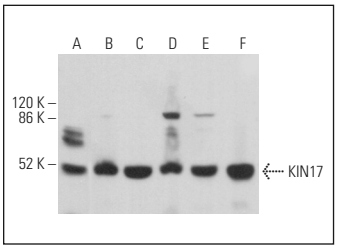
Molecular Weight of KIN17: 45 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Jurkat whole cell lysate: sc-2204 or HCT-116 whole cell lysate: sc-364175.

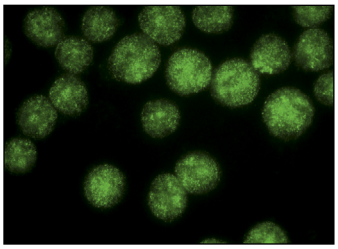
STORAGE

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

DATA



KIN17 (K58): sc-32769. Western blot analysis of KIN17 expression in HCT-116 (**A**), K-562 (**B**), Jurkat (**C**), SK-BR-3 (**D**), HEK293 (**E**) and NIH/3T3 (**F**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



KIN17 (K58): sc-32769. Immunofluorescence staining of methanol-fixed K-562 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Ramos, A.C., et al. 2015. The KIN17 protein in murine melanoma cells. Int. J. Mol. Sci. 16: 27912-27920.
2. Zhang, Y., et al. 2017. Upregulation of KIN17 is associated with non-small cell lung cancer invasiveness. Oncol. Lett. 13: 2274-2280.
3. Gao, X., et al. 2019. Knockdown of DNA/RNA-binding protein KIN17 promotes apoptosis of triple-negative breast cancer cells. Oncol. Lett. 17: 288-293.
4. Pattaro Júnior, J.R., et al. 2019. Biophysical characterization and molecular phylogeny of human KIN protein. Eur. Biophys. J. 48: 645-657.
5. Jiang, Q.G., et al. 2021. KIN17 facilitates thyroid cancer cell proliferation, migration, and invasion by activating p38 MAPK signaling pathway. Mol. Cell. Biochem. 476: 727-739.
6. Gaspar, V.P., et al. 2021. Interactome analysis of KIN (KIN17) shows new functions of this protein. Curr. Issues Mol. Biol. 43: 767-781.
7. Huang, Q., et al. 2021. KIN17 promotes tumor metastasis by activating EMT signaling in luminal-A breast cancer. Thorac. Cancer 12: 2013-2023.
8. Su, B., et al. 2022. Deficiency of KIN17 facilitates apoptosis of cervical cancer cells by modulating caspase 3, PARP, and Bcl-2 family proteins. J. Oncol. 2022: 3156968.

RESEARCH USE

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

PROTOCOLS

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