

# KIN17 (F-5): sc-271753

## 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.

## REFERENCES

- Mazin, A., et al. 1994. KIN17, a mouse nuclear zinc-finger protein that binds preferentially to curved DNA. *Nucleic Acids Res.* 22: 4335-4341.
- Mazin, A., et al. 1994. KIN17, a mouse nuclear protein, binds to bent DNA fragments that are found at illegitimate recombination junctions in mammalian cells. *Mol. Gen. Genet.* 244: 435-438.
- Biard, D.S., et al. 1997. Enhanced expression of the KIN17 protein immediately after low doses of ionizing radiation. *Radiat. Res.* 147: 442-450.
- Biard, D.S., et al. 1997. Differential expression of the HsKIN17 protein during differentiation of *in vitro* reconstructed human skin. *Arch. Dermatol. Res.* 289: 448-456.
- Kannouche, P., et al. 2000. Molecular cloning and characterization of the human KIN17 cDNA encoding a component of the UVC response that is conserved among metazoans. *Carcinogenesis* 21: 1701-1710.
- Biard, D.S., et al. 2002. Ionizing radiation triggers chromatin-bound KIN17 complex formation in human cells. *J. Biol. Chem.* 277: 19156-19165.
- Micoli, L., et al. 2002. Human KIN17 protein directly interacts with the simian virus 40 large T antigen and inhibits DNA replication. *Cancer Res.* 62: 5425-5435.
- Masson, C., et al. 2003. Global genome repair is required to activate KIN17, a UVC-responsive gene involved in DNA replication. *Proc. Natl. Acad. Sci. USA* 100: 616-621.

## CHROMOSOMAL LOCATION

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

## SOURCE

KIN17 (F-5) is a mouse monoclonal antibody raised against amino acids 329-393 mapping at the C-terminus of KIN17 of human origin.

## PRODUCT

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

## APPLICATIONS

KIN17 (F-5) is recommended for detection of KIN17 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

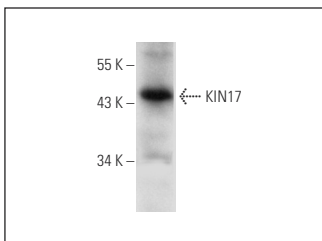
Molecular Weight of KIN17: 45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HCT-116 whole cell lysate: sc-364175.

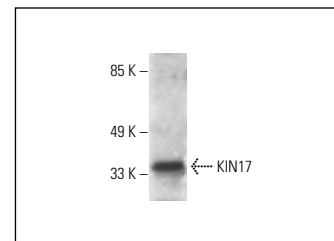
## RECOMMENDED SUPPORT REAGENTS

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



KIN17 (F-5): sc-271753. Western blot analysis of KIN17 expression in Jurkat whole cell lysate.



KIN17 (F-5): sc-271753. Western blot analysis of KIN17 expression in HCT-116 whole cell lysate.

## 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.

## PROTOCOLS

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