SANTA CRUZ BIOTECHNOLOGY, INC.

# ZKSCAN3 (A-10): sc-515285

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZKSCAN3 (zinc finger protein with KRAB and SCAN domains 3), also known as ZNF306/309 or ZNF47 homolog, is a 583 amino acid protein that may be involved in the regulation of transcription. Belonging to the Krüppel $C_2H_2$-type zinc-finger protein family, ZKSCAN3 contains seven $C_2H_2$-type zinc fingers, one KRAB domain and one SCAN box domain. Overexpression of ZKSCAN3 has been found in colorectal tumor samples, with higher levels of expression found in invasive tumor types compared with non-invasive tumors. This evidence also coincides with the fact that the chromosomal region of the gene encoding ZKSCAN3 is found to be amplified in colorectal cancer. Knockdown of the mRNA encoding ZKSCAN3 results in impaired anchorage-independent growth and orthotopic tumor growth in two independent colon cancer cell lines.

## CHROMOSOMAL LOCATION

Genetic locus: ZKSCAN3 (human) mapping to 6p22.1.

## SOURCE

ZKSCAN3 (A-10) is a mouse monoclonal antibody raised against amino acids 442-491 mapping near the C-terminus of ZKSCAN3 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZKSCAN3 (A-10) is available conjugated to agarose (sc-515285 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515285 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515285 PE), fluorescein (sc-515285 FITC), Alexa Fluor® 488 (sc-515285 AF488), Alexa Fluor® 546 (sc-515285 AF546), Alexa Fluor® 594 (sc-515285 AF594) or Alexa Fluor® 647 (sc-515285 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515285 AF680) or Alexa Fluor® 790 (sc-515285 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

ZKSCAN3 (A-10) is recommended for detection of ZKSCAN3 of 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 ZKSCAN3 siRNA (h): sc-95093, ZKSCAN3 shRNA Plasmid (h): sc-95093-SH and ZKSCAN3 shRNA (h) Lentiviral Particles: sc-95093-V.

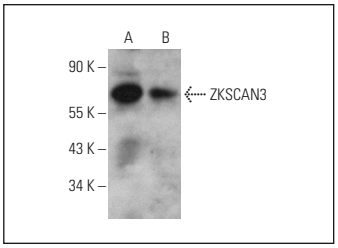
Molecular Weight of ZKSCAN3: 61 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262 or HeLa whole cell lysate: sc-2200.

## 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




ZKSCAN3 (A-10): sc-515285. Western blot analysis of ZKSCAN3 expression in Caco-2 (**A**) and HeLa (**B**) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Hu, H., et al. 2020. ZKSCAN3 counteracts cellular senescence by stabilizing heterochromatin. Nucleic Acids Res. 48: 6001-6018.
2. Kawahara, T., et al. 2020. Impact of vasectomy on the development and progression of prostate cancer: preclinical evidence. Cancers 12: 2295.
3. Ouyang, X., et al. 2021. ZKSCAN3 in severe bacterial lung infection and sepsis-induced immunosuppression. Lab. Invest. 101: 1467-1474.
4. Wu, X., et al. 2022. Deacetylation of ZKSCAN3 by SIRT1 induces autophagy and protects SN4741 cells against $MPP^+$-induced oxidative stress. Free Radic. Biol. Med. 181: 82-97.

## 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 for detailed protocols and support products.