# SANTA CRUZ BIOTECHNOLOGY, INC.

# KHNYN (E-3): sc-514168



#### BACKGROUND

KHNYN (KH and NYN domain-containing protein), also known as KIAA0323, is a 678 amino acid protein that belongs to the N4BP1 family. KHNYN undergoes phosphorylation at amino acid residues 118 (Ser), 125 (Thr), 353 (Ser) and 359 (Ser). The gene encoing KHNYN maps to human chromosome 14, which contains about 700 genes, 106 million base pairs and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein BCL3 in the (14;19) translocations found in a variety of B cell malignancies.

## **CHROMOSOMAL LOCATION**

Genetic locus: KHNYN (human) mapping to 14q12.

### SOURCE

KHNYN (E-3) is a mouse monoclonal antibody raised against amino acids 93-292 mapping within an internal region of KHNYN of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  IgG\_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KHNYN (E-3) is available conjugated to agarose (sc-514168 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514168 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514168 PE), fluorescein (sc-514168 FITC), Alexa Fluor® 488 (sc-514168 AF488), Alexa Fluor® 546 (sc-514168 AF546), Alexa Fluor® 594 (sc-514168 AF594) or Alexa Fluor® 647 (sc-514168 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514168 AF680) or Alexa Fluor® 790 (sc-514168 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

#### **RESEARCH USE**

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

#### **APPLICATIONS**

KHNYN (E-3) is recommended for detection of KHNYN 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 KHNYN siRNA (h): sc-92366, KHNYN shRNA Plasmid (h): sc-92366-SH and KHNYN shRNA (h) Lentiviral Particles: sc-92366-V.

Molecular Weight of KHNYN: 75 kDa.

Positive Controls: JAR cell lysate: sc-2276, RT-4 whole cell lysate: sc-364257 or A-431 whole cell lysate: sc-2201.

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG K BP-HRP: sc-516102 or m-IgG K 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-IgG K BP-FITC: sc-516140 or m-IgG K 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.

#### DATA



KHNYN (E-3). sc-514166. Western biot analysis of KHNYN expression in T98G (**A**), JAR (**B**), RT-4 (**C**), U-251-MG (**D**) and A-431 (**E**) whole cell lysates.

#### SELECT PRODUCT CITATIONS

- 1. Nchioua, R., et al. 2020. SARS-CoV-2 is restricted by zinc finger antiviral protein despite preadaptation to the low-CpG environment in humans. mBio 11: e01930-20.
- Kmiec, D., et al. 2021. S-farnesylation is essential for antiviral activity of the long ZAP isoform against RNA viruses with diverse replication strategies. PLoS Pathog. 17: e1009726.

# STORAGE

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **PROTOCOLS**

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

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