# SANTA CRUZ BIOTECHNOLOGY, INC.

# KHNYN (C-13): sc-136727



# 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 14g12, 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.

#### REFERENCES

- 1. Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins in vitro. DNA Res. 4: 141-150.
- 2. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
- 3. Olsen, J.V., et al. 2006. Global, in vivo, and site-specific phosphorylation dynamics in signaling networks. Cell 127: 635-648.
- 4. Stolk, J., et al. 2006. α1-antitrypsin deficiency: current perspective on research, diagnosis, and management. Int. J. Chron. Obstruct. Pulmon. Dis. 1: 151-160.
- 5. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. Mol. Neurodegener. 1: 4.
- 6. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
- 7. Filley, C.M., et al. 2007. The genetics of very early onset Alzheimer disease. Cogn. Behav. Neurol. 20: 149-156.
- 8. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B-cell malignancies carrying a t(14;19)(g32;g13) or variant BCL3-translocation. Leukemia 21: 1532-1544.
- 9. Micci, F., et al. 2007. Molecular cytogenetic characterization of t(14;19)(g32;p13), a new recurrent translocation in B cell malignancies. Virchows Arch. 450: 559-565.

#### CHROMOSOMAL LOCATION

Genetic locus: KHNYN (human) mapping to 14q12; Khnyn (mouse) mapping to 14 C3.

## SOURCE

KHNYN (C-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of KHNYN of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136727 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

KHNYN (C-13) is recommended for detection of KHNYN of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KHNYN (C-13) is also recommended for detection of KHNYN in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KHNYN siRNA (h): sc-92366, KHNYN siRNA (m): sc-140525, KHNYN shRNA Plasmid (h): sc-92366-SH, KHNYN shRNA Plasmid (m): sc-140525-SH, KHNYN shRNA (h) Lentiviral Particles: sc-92366-V and KHNYN shRNA (m) Lentiviral Particles: sc-140525-V.

Molecular Weight of KHNYN: 75 kDa.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat antirabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **STORAGE**

Store at 4° C, \*\*D0 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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try KHNYN (E-3): sc-514168, our highly recommended monoclonal alternative to KHNYN (C-13).