

ANKK1 (N-14): sc-169952

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. ANKK1 (ankyrin repeat and kinase domain containing 1), also known as PKK2 or SGK288, is a 765 amino acid protein that belongs to the Ser/Thr protein kinase family and contains 12 ANK repeats and one protein kinase domain. Highly expressed in brain tissue and present in lower amounts in placenta and spinal cord, ANKK1 functions to catalyze the ATP-dependent phosphorylation of target proteins and is thought to play a role in alcohol and nicotine dependence. The gene encoding ANKK1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES

1. Bairoch, A., et al. 1988. Sequence patterns in protein kinases. *Nature* 331: 22.
2. Hanks, S.K., et al. 1988. The protein kinase family: conserved features and deduced phylogeny of the catalytic domains. *Science* 241: 42-52.
3. Hanks, S.K., et al. 1991. Protein kinase catalytic domain sequence database: identification of conserved features of primary structure and classification of family members. *Meth. Enzymol.* 200: 38-62.
4. Manning, G., et al. 2002. The protein kinase complement of the human genome. *Science* 298: 1912-1934.
5. Neville, M.J., et al. 2004. Identification and characterization of ANKK1: a novel kinase gene closely linked to DRD2 on chromosome band 11q23.1. *Hum. Mutat.* 23: 540-545.
6. Dick, D.M., et al. 2007. Family-based association analyses of alcohol dependence phenotypes across DRD2 and neighboring gene ANKK1. *Alcohol. Clin. Exp. Res.* 31: 1645-1653.
7. Yang, B.Z., et al. 2007. Association of haplotypic variants in DRD2, ANKK1, TTC12 and NCAM1 to alcohol dependence in independent case control and family samples. *Hum. Mol. Genet.* 16: 2844-2853.
8. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 608774. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ANKK1 (human) mapping to 11q23.2; Ankk1 (mouse) mapping to 9 A5.3.

SOURCE

ANKK1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ANKK1 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169952 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANKK1 (N-14) is recommended for detection of ANKK1 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ANKK1 siRNA (h): sc-96702, ANKK1 siRNA (m): sc-141069, ANKK1 shRNA Plasmid (h): sc-96702-SH, ANKK1 shRNA Plasmid (m): sc-141069-SH, ANKK1 shRNA (h) Lentiviral Particles: sc-96702-V and ANKK1 shRNA (m) Lentiviral Particles: sc-141069-V.

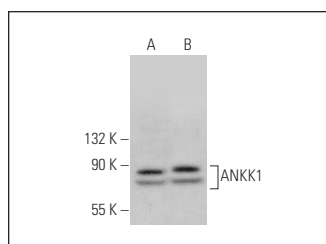
Molecular Weight of ANKK1: 85 kDa.

Positive Controls: AMJ2-C8 whole cell lysate: sc-364366 or I-11.15 whole cell lysate: sc-364370.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ANKK1 (N-14): sc-169952. Western blot analysis of ANKK1 expression in AMJ2-C8 (A) and I-11.15 (B) whole cell lysates.

RESEARCH USE

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