

# BinCARD (Y-19): sc-241925

## BACKGROUND

BinCARD (Bcl10-interacting CARD protein) is a 228 amino acid protein that exists as 2 alternatively spiced isoforms. BinCARD localizes to nucleus and is expressed in ovary, testis, placenta, skeletal muscle, kidney, lung, heart, liver, thymus and brain. Containing a CARD domain, BinCARD plays a role in inhibiting the effects of Bcl10-induced activation of NF $\kappa$ B possibly by inhibiting the phosphorylation of Bcl10 in a CARD-dependent manner. The BinCARD gene maps to chromosome 9q22.31. Chromosome 9 consists of about 145 million bases and 4% of the human genome and encodes nearly 900 genes. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, is associated with the chromosome 9 gene encoding endoglin protein, ENG. Familial dysautonomia is also associated with chromosome 9 though through the gene IKAP.

## REFERENCES

1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Woo, H.N., et al. 2004. Inhibition of Bcl10-mediated activation of NF- $\kappa$ B by BinCARD, a Bcl10-interacting CARD protein. *FEBS Lett.* 578: 239-244.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
4. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
5. Wang, P., et al. 2006. Cloning of a novel human caspase-9 splice variant containing only the CARD domain. *Life Sci.* 79: 934-940.
6. Temtamy, S.A., et al. 2007. Phenotypic and cytogenetic spectrum of 9p trisomy. *Genet. Couns.* 18: 29-48.
7. Fernandez-L, A., et al. 2007. Gene expression fingerprinting for human hereditary hemorrhagic telangiectasia. *Hum. Mol. Genet.* 16: 1515-1533.

## CHROMOSOMAL LOCATION

Genetic locus: C9orf89 (human) mapping to 9q22.31; 1110007C09Rik (mouse) mapping to 13 A5.

## SOURCE

BinCARD (Y-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BinCARD of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-241925 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

BinCARD (Y-19) is recommended for detection of BinCARD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

BinCARD (Y-19) is also recommended for detection of BinCARD in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for BinCARD siRNA (h): sc-92507, BinCARD siRNA (m): sc-141706, BinCARD shRNA Plasmid (h): sc-92507-SH, BinCARD shRNA Plasmid (m): sc-141706-SH, BinCARD shRNA (h) Lentiviral Particles: sc-92507-V and BinCARD shRNA (m) Lentiviral Particles: sc-141706-V.

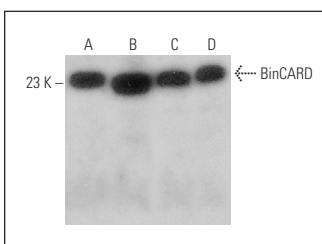
Molecular Weight of BinCARD: 26 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or JAR cell lysate: sc-2276.

## 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



BinCARD (Y-19): sc-241925. Western blot analysis of BinCARD expression in HeLa (A), Hep G2 (B), NTERA-2 cl.D1 (C) and JAR (D) whole cell lysates.

## 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.