

# BEND7 (L-17): sc-241902

## BACKGROUND

BEND7 (BEN domain containing 7) is a 519 amino acid protein that contains a BEN domain. BEN domain mediates protein-DNA and protein-protein interactions during chromatin organization and transcription. BEN domain may play a role in organization of viral DNA during replication or transcription. BEND7 exists as three independently spliced isoforms and the gene that encodes BEND7 maps to chromosome 10p13. Chromosome 10 contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10.

## REFERENCES

1. Deloukas, P., et al. 2000. Report of the third international workshop on human chromosome 10 mapping and sequencing 1999. *Cytogenet. Cell Genet.* 90: 1-12.
2. Gilbert, F. 2001. Chromosome 10. *Genet. Test.* 5: 69-82.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
4. Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. *Nature* 429: 375-381.
5. Grupe, A., et al. 2006. A scan of chromosome 10 identifies a novel locus showing strong association with late-onset Alzheimer disease. *Am. J. Hum. Genet.* 78: 78-88.
6. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
7. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. *Am. J. Surg. Pathol.* 32: 1258-1264.

## CHROMOSOMAL LOCATION

Genetic locus: BEND7 (human) mapping to 10p13; Bend7 (mouse) mapping to 2 A1.

## SOURCE

BEND7 (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BEND7 of human origin.

## 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-241902 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

BEND7 (L-17) is recommended for detection of BEND7 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); non cross-reactive with other BEND family members.

BEND7 (L-17) is also recommended for detection of BEND7 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for BEND7 siRNA (h): sc-90364, BEND7 siRNA (m): sc-141816, BEND7 shRNA Plasmid (h): sc-90364-SH, BEND7 shRNA Plasmid (m): sc-141816-SH, BEND7 shRNA (h) Lentiviral Particles: sc-90364-V and BEND7 shRNA (m) Lentiviral Particles: sc-141816-V.

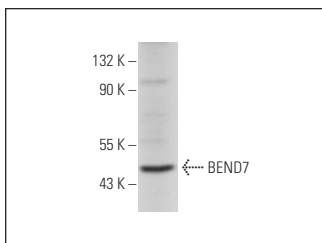
Molecular Weight of BEND7: 58 kDa.

Positive Controls: HT-1080 whole cell lysate: sc-364183 or Jurkat whole cell lysate: sc-2204.

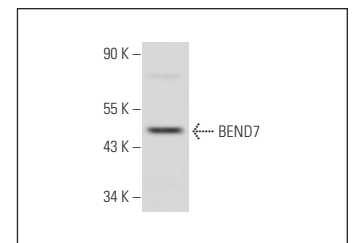
## RECOMMENDED SECONDARY REAGENTS

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



BEND7 (L-17): sc-241902. Western blot analysis of BEND7 expression in Jurkat whole cell lysate.



BEND7 (L-17): sc-241902. Western blot analysis of BEND7 expression in HT-1080 whole cell lysate.

## 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.