

# BEND3 (C-17): sc-245041

## BACKGROUND

BEND3 (BEN domain-containing protein 3) is an 828 amino acid protein that contains 4 BEN domains. BEND3 is considered a complete proteome as well as a phosphoprotein. BEN domain mediates protein-DNA and protein-protein interactions during chromatin organization and transcription. The BEN domain may play a role in organization of viral DNA during replication or transcription. The BEND3 gene maps to human chromosome 6q21. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6.

## REFERENCES

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- Safadi, S.S. and Shaw, G.S. 2007. A disease state mutation unfolds the parkin ubiquitin-like domain. *Biochemistry* 46: 14162-14169.
- Park, E., et al. 2007. Modulation of parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.
- Abhiman, S., et al. 2008. BEN: a novel domain in chromatin factors and DNA viral proteins. *Bioinformatics* 24: 458-461.
- de Souza, R.F., et al. 2010. Diversity and evolution of chromatin proteins encoded by DNA viruses. *Biochim. Biophys. Acta* 1799: 302-318.
- Malonia, S.K., et al. 2010. Gene regulation by SMAR1: Role in cellular homeostasis and cancer. *Biochim. Biophys. Acta* 1815: 1-12.
- SWISS-PROT/TrEMBL (Q5T5X7). World Wide Web URL: <http://www.uniprot.org/uniprot/Q5T5X7>

## CHROMOSOMAL LOCATION

Genetic locus: BEND3 (human) mapping to 6q21; Bend3 (mouse) mapping to 10 B2.

## SOURCE

BEND3 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BEND3 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-245041 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

BEND3 (C-17) is recommended for detection of BEND3 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 BEND family members.

BEND3 (C-17) is also recommended for detection of BEND3 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for BEND3 siRNA (h): sc-95238, BEND3 siRNA (m): sc-146458, BEND3 shRNA Plasmid (h): sc-95238-SH, BEND3 shRNA Plasmid (m): sc-146458-SH, BEND3 shRNA (h) Lentiviral Particles: sc-95238-V and BEND3 shRNA (m) Lentiviral Particles: sc-146458-V.

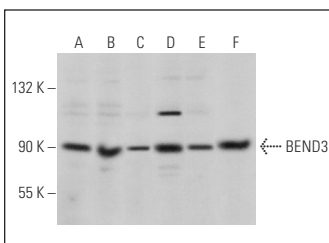
Molecular Weight of BEND3: 94 kDa.

Positive Controls: NCI-H460 whole cell lysate: sc-364235, HeLa whole cell lysate: sc-2200 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



BEND3 (C-17): sc-245041. Western blot analysis of BEND3 expression in NCI-H460 (A), HeLa (B), Jurkat (C), K-562 (D), Hep G2 (E) and HCT-116 (F) 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.