SANTA CRUZ BIOTECHNOLOGY, INC.

BEND2 (C-20): sc-241897



The Power to Question

BACKGROUND

BEND2 (BEN domain-containing protein 2) is a 799 amino acid protein that contains 2 BEN domains. BEND2 exists as two alternatively spliced isoforms and is considered a complete proteome. 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. The BEND2 gene maps to human chromosome Xp22.13. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The X and Y chromosome lead to normal male development while two copies of X lead to normal female development. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

REFERENCES

- Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
- 2. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Genome Res. 14: 2121-2127.
- 3. Deeb, S.S. 2005. The molecular basis of variation in human color vision. Clin. Genet. 67: 369-377.
- 4. Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. Nature 434: 325-337.
- 5. Hayashi, T., et al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. Vis. Neurosci. 23: 411-417.
- Abhiman, S., et al. 2008. BEN: a novel domain in chromatin factors and DNA viral proteins. Bioinformatics 24: 458-461.
- Bahi-Buisson, N., et al. 2010. Epileptic encephalopathy in a girl with an interstitial deletion of Xp22 comprising promoter and exon 1 of the CDKL5 gene. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B: 202-207.
- SWISS-PROT/TrEMBL (Q8NDZO). World Wide Web URL: http://www. uniprot.org/uniprot/Q8NDZO

CHROMOSOMAL LOCATION

Genetic locus: BEND2 (human) mapping to Xp22.13.

SOURCE

BEND2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of BEND2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-241897 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BEND2 (C-20) is recommended for detection of BEND2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

Suitable for use as control antibody for BEND2 siRNA (h): sc-90872, BEND2 shRNA Plasmid (h): sc-90872-SH and BEND2 shRNA (h) Lentiviral Particles: sc-90872-V.

Molecular Weight of BEND2: 88 kDa.

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) Immunofluo-rescence: 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.