SANTA CRUZ BIOTECHNOLOGY, INC.

PQBP-1 (N-20): sc-26052

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The Power to Question

BACKGROUND

Polyglutamine(Q) tract binding protein-1 (PQBP-1) is a transcription repressor that associates with polyglutamine tract-containing transcription regulators and causative genes for neurodegenerative disorders. Hepta- and di-amino acid repeat sequences rich in polar residues are essential for PQBP-1 to interact with polyglutamine tract-containing proteins (i.e., huntingtin, androgen receptor and Brain-2). PQBP-1 contains a WWP/WW domain that binds proline-rich motifs and a C2 domain that can influence Ca^{2+}-dependent phospholipid signaling. PQBP-1 localizes to the nucleus and is present in neurons throughout the brain, with abundant levels in hippocampus, cerebellar cortex and olfactory bulb. The human PQBP-1 gene maps to chromosome Xp11.23.

REFERENCES

1. Imafuku, I., et al. 1998. Polar amino acid-rich sequences bind to polyglutamine tracts. Biochem. Biophys. Res. Commun. 253: 16-20.
2. Waragai, M., et al. 1999. PQBP-1, a novel polyglutamine tract-binding protein, inhibits transcription activation by Brn-2 and affects cell survival. Hum. Mol. Genet. 8: 977-987.
3. Komuro, A., et al. 1999. Npw38, a novel nuclear protein possessing a WW domain capable of activating basal transcription. Nucleic Acids Res. 27: 1957-1965.
4. Waragai, M., et al. 2000. PQBP-1/Npw38, a nuclear protein binding to the polyglutamine tract, interacts with U5-15kD/dim1p via the carboxyl-terminal domain. Biochem. Biophys. Res. Commun. 273: 592-595.
5. Iwamoto, K., et al. 2000. Genomic organization and alternative transcripts of the human PQBP-1 gene. Gene 259: 69-73.
6. Okazawa, H., et al. 2001. PQBP-1 (Np/PQ): a polyglutamine tract-binding and nuclear inclusion-forming protein. Brain Res. Bull. 56: 273-280.
7. Okazawa, H., et al. 2002. Interaction between mutant ataxin-1 and PQBP-1 affects transcription and cell death. Neuron 34: 701-713.

CHROMOSOMAL LOCATION

Genetic locus: PQBP1 (human) mapping to Xp11.23; Pqbp1 (mouse) mapping to X A1.1.

SOURCE

PQBP-1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PQBP-1 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-26052 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-26052 X, 200 µg/0.1 ml.

APPLICATIONS

PQBP-1 (N-20) is recommended for detection of PQBP-1 of mouse, rat and 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).

PQBP-1 (N-20) is also recommended for detection of PQBP-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PQBP-1 siRNA (h): sc-38199, PQBP-1 siRNA (m): sc-38200, PQBP-1 shRNA Plasmid (h): sc-38199-SH, PQBP-1 shRNA Plasmid (m): sc-38200-SH, PQBP-1 shRNA (h) Lentiviral Particles: sc-38199-V and PQBP-1 shRNA (m) Lentiviral Particles: sc-38200-V.

PQBP-1 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PQBP-1: 38 kDa.

Positive Controls: Sol8 nuclear extract: sc-2157.

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) 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.

SELECT PRODUCT CITATIONS

1. Kofler, M., et al. 2009. Proline-rich sequence recognition I: Marking GYF and WW domain assembly sites in early spliceosomal complexes. Mol. Cell. Proteomics 8: M900191-MCP200.

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.