SANTA CRUZ BIOTECHNOLOGY, INC.

PQBP-1 (FL-265): sc-32910

SANTA CRUZ BIOTECHNOLOGY

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 PQBP1 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 U5-15 kDa/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 PQBP1 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 (FL-265) is a rabbit polyclonal antibody raised against amino acids 1-265 representing full length 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-32910 X, 200 µg/0.1 ml.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

PQBP-1 (FL-265) 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), 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).

PQBP-1 (FL-265) is also recommended for detection of PQBP-1 in additional species, including equine, canine, bovine and porcine.

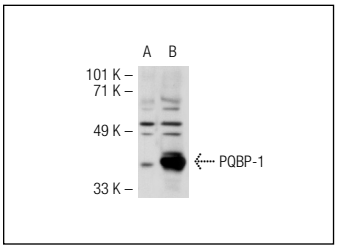
Suitable for use as control antibody for PQBP-1 siRNA (h): sc-38199, PQBP-1 siRNA (m): sc-38200, PQBP-1 shRNA Plasmid (h): sc-38199-SH, PQBP-1 shRNA Plasmid (m): sc-38200-SH, PQBP-1 shRNA (h) Lentiviral Particles: sc-38199-V and PQBP-1 shRNA (m) Lentiviral Particles: sc-38200-V.

PQBP-1 (FL-265) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

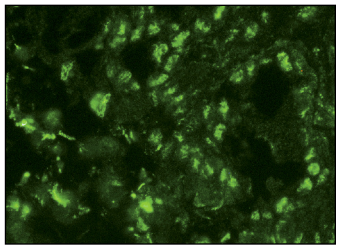
Molecular Weight of PQBP-1: 38 kDa.

Positive Controls: Sol8 nuclear extract: sc-2157 or PQBP-1 (m): 293T Lysate: sc-122739.

DATA



PQBP-1 (FL-265): sc-32910. Western blot analysis of PQBP-1 expression in non-transfected: sc-117752 (**A**) and mouse PQBP-1 transfected: sc-122739 (**B**) 293T whole cell lysates.



PQBP-1 (FL-265): sc-32910. Immunofluorescence staining of normal mouse intestine frozen section showing nuclear staining.

SELECT PRODUCT CITATIONS

1. Takahashi, K., et al. 2009. Nematode homologue of PQBP-1, a mental retardation causative gene, is involved in lipid metabolism. PLoS ONE 4: e4104.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.