

PQBP-1 (G-12): sc-376039

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 Ca²⁺-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.

CHROMOSOMAL LOCATION

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

SOURCE

PQBP-1 (G-12) is a mouse monoclonal antibody raised against amino acids 1-265 representing full length PQBP-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376039 X, 200 µg/0.1 ml.

APPLICATIONS

PQBP-1 (G-12) is recommended for detection of PQBP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

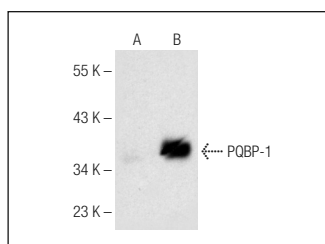
Molecular Weight of PQBP-1: 38 kDa.

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

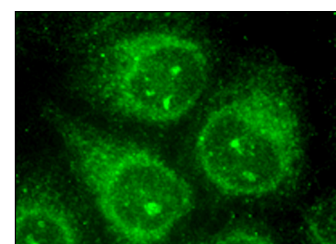
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PQBP-1 (G-12): sc-376039. 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 (G-12): sc-376039. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Fuchs, N.V., et al. 2019. Induced pluripotent stem cells (iPSCs) derived from a repenning syndrome patient with c.459_462delAGAG mutation in PQBP1 (PEli001-A). *Stem Cell Res.* 41: 101592.
2. Yoh, S.M., et al. 2022. Recognition of HIV-1 capsid by PQBP1 licenses an innate immune sensing of nascent HIV-1 DNA. *Mol. Cell* 82: 2871-2884.e6.

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 for detailed protocols and support products.