SANTA CRUZ BIOTECHNOLOGY, INC.

PQBP-1 (B-9): sc-374260

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.

CHROMOSOMAL LOCATION

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

SOURCE

PQBP-1 (B-9) 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_1 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-374260 X, 200 µg/0.1 ml.

PQBP-1 (B-9) is available conjugated to agarose (sc-374260 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374260 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374260 PE), fluorescein (sc-374260 FITC), Alexa Fluor® 488 (sc-374260 AF488), Alexa Fluor® 546 (sc-374260 AF546), Alexa Fluor® 594 (sc-374260 AF594) or Alexa Fluor® 647 (sc-374260 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374260 AF680) or Alexa Fluor® 790 (sc-374260 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PQBP-1 (B-9) 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), immunohistochemistry (including paraffin-embedded sections) (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 (B-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

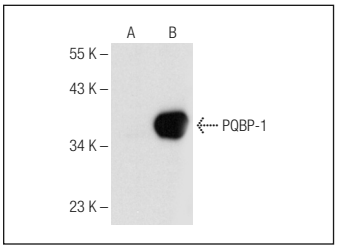
Molecular Weight of PQBP-1: 38 kDa.

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

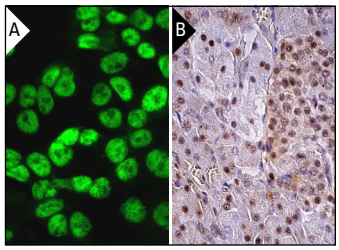
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PQBP-1 (B-9): sc-374260. 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 (B-9): sc-374260. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear staining of Islets of Langerhans and glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Tanaka, H., et al. 2018. The intellectual disability gene PQBP-1 rescues Alzheimer's disease pathology. Mol. Psychiatry 23: 2090-2110.
2. Jin, M., et al. 2021. Tau activates microglia via the PQBP1-cGAS-STING pathway to promote brain inflammation. Nat. Commun. 12: 6565.

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.