

PRORP (D-2): sc-390380



The Power to Question

BACKGROUND

Chromosome 14 contains about 700 genes and 106 million base pairs and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder α 1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein BCL3 in the (14;19) translocations found in a variety of B cell malignancies.

REFERENCES

1. Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 4: 141-150.
2. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
3. Godbolt, A.K., et al. 2004. A presenilin 1 R278I mutation presenting with language impairment. Neurology 63: 1702-1704.
4. Stolk, J., et al. 2006. α 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. Int. J. Chron. Obstruct. Pulmon. Dis. 1: 151-160.
5. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. Mol. Neurodegener. 1: 4.

CHROMOSOMAL LOCATION

Genetic locus: PRORP (human) mapping to 14q13.2; Prorp (mouse) mapping to 12 C1.

SOURCE

PRORP (D-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 545-579 near the C-terminus of PRORP of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PRORP (D-2) is available conjugated to agarose (sc-390380 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390380 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390380 PE), fluorescein (sc-390380 FITC), Alexa Fluor[®] 488 (sc-390380 AF488), Alexa Fluor[®] 546 (sc-390380 AF546), Alexa Fluor[®] 594 (sc-390380 AF594) or Alexa Fluor[®] 647 (sc-390380 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390380 AF680) or Alexa Fluor[®] 790 (sc-390380 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390380 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PRORP (D-2) is recommended for detection of PRORP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 PRORP siRNA (h): sc-92117, PRORP siRNA (m): sc-108150, PRORP shRNA Plasmid (h): sc-92117-SH, PRORP shRNA Plasmid (m): sc-108150-SH, PRORP shRNA (h) Lentiviral Particles: sc-92117-V and PRORP shRNA (m) Lentiviral Particles: sc-108150-V.

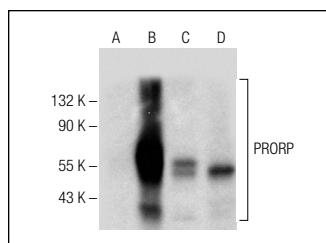
Molecular Weight of PRORP: 25/56/65/67 kDa.

Positive Controls: PRORP (h): 293T Lysate: sc-114148, U-87 MG cell lysate: sc-2411 or SK-N-SH cell lysate: sc-2410.

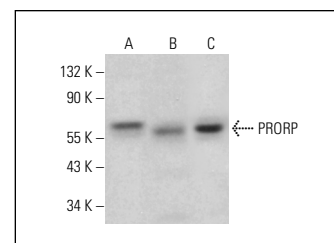
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



PRORP (D-2): sc-390380. Western blot analysis of PRORP expression in non-transfected 293T: sc-117752 (A), human PRORP transfected 293T: sc-114148 (B), U-87 MG (C) and SK-N-SH (D) whole cell lysates.



PRORP (D-2): sc-390380. Western blot analysis of PRORP expression in Jurkat (A), OVCAR-3 (B) and F9 (C) whole cell lysates.

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.