SANTA CRUZ BIOTECHNOLOGY, INC.

PRNPIP (m): 293T Lysate: sc-125856

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Prion diseases, or transmissible spongiform encephalopathies (TSEs), are manifested as genetic, infectious or sporadic, lethal neurodegenerative disorders involving alterations of the prion protein (PrP). Characteristic of prion diseases, cellular PrP (PrPc) is converted to the disease form, PrPSc, through alterations in the protein folding conformations. PrPc is constitutively expressed in normal adult brain and is sensitive to proteinase K (PK) digestion, while the altered PrPSc conformation is resistant to proteases, resulting in a distinct molecular mass after PK treatment. PRNPIP (prion protein-interacting protein), also known as ERI1 exoribonuclease 3 and PINT (prion interactor 1), is a 337 amino acid protein that interacts with PrP. PRNPIP is strongly expressed in brain, thyroid, testis and heart. There are three isoforms of PRNPIP that are produced as a result of alternative splicing events.

REFERENCES

1. Spielhaupter, C. and Schätzl, H.M. 2001. PrPC directly interacts with proteins involved in signaling pathways. J. Biol. Chem. 276: 44604-44612.
2. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609917. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Nicolas, O., Gavín, R. and del Río, J.A. 2009. New insights into cellular prion protein (PrPc) functions: the "ying and yang" of a relevant protein. Brain Res. Rev. 61: 170-184.
4. Kupfer, L., Hinrichs, W. and Groschup, M.H. 2009. Prion protein misfolding. Curr. Mol. Med. 9: 826-835.
5. Weissmann, C. 2009. Thoughts on mammalian prion strains. Folia Neuropathol. 47: 104-113.
6. Aguzzi, A. and Calella, A.M. 2009. Prions: protein aggregation and infectious diseases. Physiol. Rev. 89: 1105-1152.
7. Mehrpour, M. and Codogno, P. 2010. Prion protein: From physiology to cancer biology. Cancer Lett. 290: 1-23.
8. Silva, J.L., Gomes, M.P., Vieira, T.C., et al. Cordeiro, Y. 2010. PrP interactions with nucleic acids and glycosaminoglycans in function and disease. Front. Biosci. 15: 132-150.

CHROMOSOMAL LOCATION

Genetic locus: Eri3 (mouse) mapping to 4 D2.1.

PRODUCT

PRNPIP (m): 293T Lysate represents a lysate of mouse PRNPIP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

PRNPIP (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PRNPIP antibodies. Recommended use: 10-20 µl per lane.

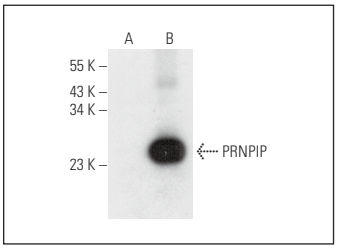
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PRNPIP (F-10): sc-514310 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PRNPIP expression in PRNPIP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



PRNPIP (F-10): sc-514310. Western blot analysis of PRNPIP expression in non-transfected: sc-117752 (**A**) and mouse PRNPIP transfected: sc-125856 (**B**) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.