SANTA CRUZ BIOTECHNOLOGY, INC.

DPRP1 (h2): 293T Lysate: sc-171936

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dipeptidyl peptidases (DPPs) mediate regulatory activity of their substrates and have been linked to a variety of diseases including type 2 diabetes, obesity and cancer. DPPs have post-proline dipeptidyl aminopeptidase activity, cleaving Xaa-Pro dipeptides from the N-termini of proteins. DPPs can bind specific voltage-gated potassium channels and alter their expression and biophysical properties and may also influence T cells. DPP proteins include DPRP1, DPRP2, DPP3, DPP7, DPP10, DPPX and CD26. DPRP1 (dipeptidyl-peptidase IV-related protein 1), also known as DPP8 (dipeptidyl-peptidase 8), DP8 or MSTP141, is a member of the peptidase S9B family of proteins that exhibit prolyl oligopeptidase activity. DPRP1 localizes to the cytoplasm and is ubiquitously expressed with predominant expression in placenta, brain, prostate, testis and muscle. DPRP1 is similar to CD26 (dipeptidyl peptidase IV) suggesting that it may be involved in immune function and participate in the activation of T-cells.

REFERENCES

1. Abbott, C.A., et al. 2000. Cloning, expression and chromosomal localization of a novel human dipeptidyl peptidase (DPP) IV homolog, DPP8. Eur. J. Biochem. 267: 6140-6150.
2. Olsen, C., et al. 2002. Identification and characterization of human DPP9, a novel homologue of dipeptidyl peptidase IV. Gene 299: 185-193.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606819. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Qi, S.Y., et al. 2003. Cloning and characterization of dipeptidyl peptidase 10, a new member of an emerging subgroup of serine proteases. Biochem. J. 373: 179-189.
5. Busek, P., et al. 2007. Dipeptidyl peptidase-IV enzymatic activity bearing molecules in human brain tumors—good or evil? Front. Biosci. 13: 2319-2326.
6. Van der Veken, P., et al. 2007. Irreversible inhibition of dipeptidyl peptidase 8 by dipeptide-derived diaryl phosphonates. J. Med. Chem. 50: 5568-5570.
7. Kang, N.S., et al. 2007. Docking-based 3D-QSAR study for selectivity of DPP4, DPP8, and DPP9 inhibitors. Bioorg. Med. Chem. Lett. 17: 3716-3721.
8. Cox, J.M., et al. 2007. Discovery of 3-aminopiperidines as potent, selective, and orally bioavailable dipeptidyl peptidase IV inhibitors. Bioorg. Med. Chem. Lett. 17: 4579-4583.
9. Van der Veken, P., et al. 2007. Prolyl peptidases related to dipeptidyl peptidase IV: potential of specific inhibitors in drug discovery. Curr. Top. Med. Chem. 7: 621-635.

CHROMOSOMAL LOCATION

Genetic locus: DPP8 (human) mapping to 15q22.31.

PRODUCT

DPRP1 (h2): 293T Lysate represents a lysate of human DPRP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

DPRP1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive DPRP1 antibodies. Recommended use: 10-20 µl per lane.

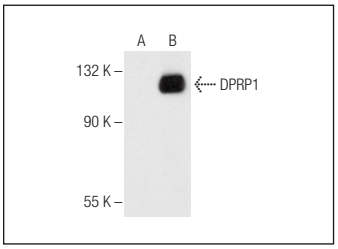
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DPRP1 (A-5): sc-376399 is recommended as a positive control antibody for Western Blot analysis of enhanced human DPRP1 expression in DPRP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

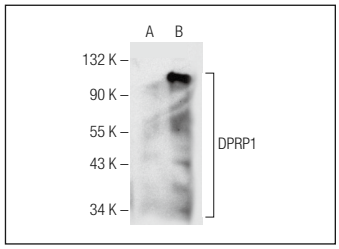
RECOMMENDED SUPPORT REAGENTS

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



DPRP1 (A-5): sc-376399. Western blot analysis of DPRP1 expression in non-transfected: sc-117752 (**A**) and human DPRP1 transfected: sc-171936 (**B**) 293T whole cell lysates.



DPRP1 (A-5): sc-376399. Western blot analysis of DPRP1 expression in non-transfected: sc-117752 (**A**) and human DPRP1 transfected: sc-171936 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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