DPRP1 (S-19): sc-55183



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 prolyloligopeptidase 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

- 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.
- Olsen, C. and Wagtmann, N. 2002. Identification and characterization of human DPP9, a novel homologue of dipeptidyl peptidase IV. Gene 299: 185-193.
- 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.
- Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 606819. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 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.
- 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 (mouse) mapping to 9 C.

SOURCE

DPRP1 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DPRP1 of mouse origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55183 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DPRP1 (S-19) is recommended for detection of DPRP1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

DPRP1 (S-19) is also recommended for detection of DPRP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DPRP1 siRNA (m): sc-62235, DPRP1 shRNA Plasmid (m): sc-62235-SH and DPRP1 shRNA (m) Lentiviral Particles: sc-62235-V.

Molecular Weight of DPRP1: 100 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**