SANTA CRUZ BIOTECHNOLOGY, INC.

DPPX (H-77): sc-135188

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 (dipeptidyl-peptidase 8, DPP8, MSTP141), DPRP2 (dipeptidyl-peptidase 9, DPP9), DPP3 (DPPIII), DPRP3 (dipeptidyl-peptidase 10, DPP10, DPL2, DPPY, DPRP3), DPP6 (DPPX), DPP4 (adenosine deaminase complexing protein-2, T cell activation antigen CD26) and DPP7 (DPP2, QPP). DPPX, which can bind to the potassium channel KCND2, is a single-pass type II membrane protein. It is expressed mainly in brain tissues and may act as a modulator for cell surface expressed and activity of KCND2.

REFERENCES

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2. Jerng, H.H., Pfaffinger, P.J. and Covarrubias, M. 2004. Molecular physiology and modulation of somatodendritic A-type potassium channels. Mol. Cell. Neurosci. 27: 343-369.
3. Jerng, H.H., Qian, Y. and Pfaffinger, P.J. 2004. Modulation of KV4.2 channel expression and gatin (DPP10). Biophys. J. 87: 2380-2396.
4. Strop, P., Bankovich, A.J., Hansen, K.C., Garcia, K.C. and Brunger, A.T. 2004. Structure of a human of the dipeptidyl aminopeptidase family. J. Mol. Biol. 343: 1055-1065.
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CHROMOSOMAL LOCATION

Genetic locus: DPP6 (human) mapping to 7q36.2; Dpp6 (mouse) mapping to 5 B1.

SOURCE

DPPX (H-77) is a rabbit polyclonal antibody raised against amino acids 668-744 mapping within an extracellular domain of DPPX of human origin.

PRODUCT

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

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DPPX (H-77) is recommended for detection of DPPX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DPPX (H-77) is also recommended for detection of DPPX in additional species, including equine, canine and porcine.

Suitable for use as control antibody for DPPX siRNA (h): sc-60548, DPPX siRNA (m): sc-60549, DPPX shRNA Plasmid (h): sc-60548-SH, DPPX shRNA Plasmid (m): sc-60549-SH, DPPX shRNA (h) Lentiviral Particles: sc-60548-V and DPPX shRNA (m) Lentiviral Particles: sc-60549-V.

Molecular Weight of DPPX: 100 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or SK-N-SH cell lysate: sc-2410.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.