SANTA CRUZ BIOTECHNOLOGY, INC.

DPPX (K-20): sc-46924

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

1. Yokotani, N., Doi, K., Wenthold, R.J. and Wada, K. 1993. Non-conservation of a catalytic residue protein encoded by a gene on human chromosome 7. Hum. Mol. Genet. 2: 1037-1039.
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.
5. Zagha, E., Ozaita, A., Chang, S.Y., Nadal, M.S., Lin, U., Saganich, M.J., McCormack, T., Akinsanya, K.O., Qi, S.Y. and Rudy, B. 2005. DPP10 modulates KV4-mediated A-type potassium channels. J. Biol. Chem. 280: 18853-18861.

CHROMOSOMAL LOCATION

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

SOURCE

DPPX (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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.

Blocking peptide available for competition studies, sc-46924 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

DPPX (K-20) 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).

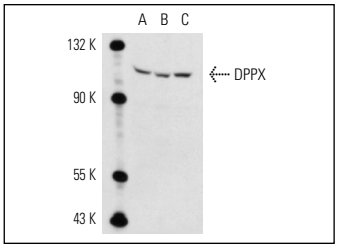
DPPX (K-20) is also recommended for detection of DPPX in additional species, including equine, canine and porcine.

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, SK-N-SH cell lysate: sc-2410 or BE (2)-M17 whole cell lysate: sc-364358.

DATA



DPPX (K-20): sc-46924. Western blot analysis of DPPX expression in IMR-32 (**A**), BE(2)-M17 (**B**) and SK-N-SH (**C**) whole cell lysates.

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.

MONOS Satisfaction Guaranteed

Try **DPPX (A-8): sc-365147** or **DPPX (H-4): sc-398726**, our highly recommended monoclonal alternatives to DPPX (K-20).