

DPP10 (L-15): sc-55632

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 DPP1, DPP2, DPP3, DPP7, DPP10, DPPX and CD26. DPP10 (dipeptidyl-peptidase 10), also known as DPP3 (dipeptidyl peptidase IV-related protein 3), DPL2 or DPPY, is a non-functional dipeptidyl peptidase which can bind to the potassium channels KV4.1 and KV4.2. It is a single-pass type II membrane protein expressed in spinal cord, adrenal glands, pancreas and brain tissues and may act as a modulator for cell surface expression and activity of KV4.1 and KV4.2.

REFERENCES

- 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.
- Jerng, H.H., et al. 2004. Modulation of KV4.2 channel expression and gating by dipeptidyl peptidase 10 (DPP10). *Biophys. J.* 87: 2380-2396.
- Jerng, H.H., et al. 2005. Multiprotein assembly of Kv4.2, KChIP3 and DPP10 produces ternary channel complexes with ISA-like properties. *J. Physiol.* 568: 767-788.
- Zagha, E., et al. 2005. DPP10 modulates KV4-mediated A-type potassium channels. *J. Biol. Chem.* 280: 18853-18861.
- Takimoto, K., et al. 2006. Species and tissue differences in the expression of DPPY splicing variants. *Biochem. Biophys. Res. Commun.* 348: 1094-1100.
- Chen, T., et al. 2006. Molecular characterization of a novel dipeptidyl peptidase like 2-short form (DPL2-s) that is highly expressed in the brain and lacks dipeptidyl peptidase activity. *Biochim. Biophys. Acta* 1764: 33-43.

CHROMOSOMAL LOCATION

Genetic locus: DPP10 (human) mapping to 2q14.1; Dpp10 (mouse) mapping to 1 E2.3.

SOURCE

DPP10 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DPP10 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-55632 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

DPP10 (L-15) is recommended for detection of DPP10 of mouse 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).

DPP10 (L-15) is also recommended for detection of DPP10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DPP10 siRNA (h): sc-62228, DPP10 siRNA (m): sc-62229, DPP10 shRNA Plasmid (h): sc-62228-SH, DPP10 shRNA Plasmid (m): sc-62229-SH, DPP10 shRNA (h) Lentiviral Particles: sc-62228-V and DPP10 shRNA (m) Lentiviral Particles: sc-62229-V.

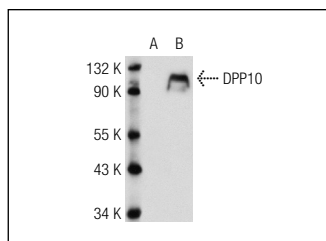
Molecular Weight of DPP10: 97 kDa.

Positive Controls: DPP10 (h): 293T Lysate: sc-174156.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



DPP10 (L-15): sc-55632. Western blot analysis of DPP10 expression in non-transfected: sc-117752 (A) and human DPP10 transfected: sc-174156 (B) 293T whole cell lysates.

RESEARCH USE

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



Try **DPP10 (B-3): sc-398108** or **DPP10 (C-1): sc-393442**, our highly recommended monoclonal alternatives to DPP10 (L-15).