

DPRP2 (F-1): sc-271634

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. DPRP2 (dipeptidyl-peptidase IV-related protein 2), also known as DPP9 (dipeptidyl-peptidase 9) or DP9, is a member of the peptidase S9B family of proteins that exhibit prolyl-oligopeptidase activity. DPRP2 localizes to the cytoplasm and is ubiquitously expressed with predominant expression in heart, muscle and liver. DPRP2 may play an important role in the regulation of signaling by peptide hormones.

REFERENCES

1. Olsen, C. and Wagtmann, N. 2002. Identification and characterization of human DPP9, a novel homologue of dipeptidyl peptidase IV. *Gene* 299: 185-193.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608258. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. 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.
4. Ajami, K., et al. 2004. Dipeptidyl peptidase 9 has two forms, a broad tissue distribution, cytoplasmic localization and DPIP-like peptidase activity. *Biochim. Biophys. Acta* 1679: 18-28.

CHROMOSOMAL LOCATION

Genetic locus: DPP9 (human) mapping to 19p13.3.

SOURCE

DPRP2 (F-1) is a mouse monoclonal antibody raised against amino acids 285-338 mapping within an internal region of DPRP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DPRP2 (F-1) is available conjugated to agarose (sc-271634 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271634 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271634 PE), fluorescein (sc-271634 FITC), Alexa Fluor® 488 (sc-271634 AF488), Alexa Fluor® 546 (sc-271634 AF546), Alexa Fluor® 594 (sc-271634 AF594) or Alexa Fluor® 647 (sc-271634 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271634 AF680) or Alexa Fluor® 790 (sc-271634 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

DPRP2 (F-1) is recommended for detection of DPRP2 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for DPRP2 siRNA (h): sc-62236, DPRP2 shRNA Plasmid (h): sc-62236-SH and DPRP2 shRNA (h) Lentiviral Particles: sc-62236-V.

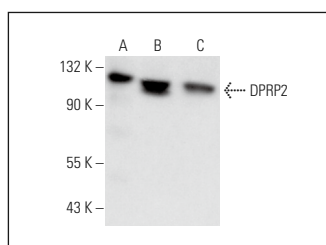
Molecular Weight of DPRP2: 98 kDa.

Positive Controls: DU 145 cell lysate: sc-2268, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

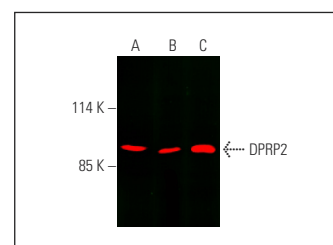
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DPRP2 (F-1): sc-271634. Western blot analysis of DPRP2 expression in DU 145 (A), K-562 (B) and HeLa (C) whole cell lysates.



DPRP2 (F-1): sc-271634. Near-infrared western blot analysis of DPRP2 expression in DU 145 (A), K-562 (B) and HeLa (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

SELECT PRODUCT CITATIONS

1. Koyani, C.N., et al. 2018. Saxagliptin but not Sitagliptin inhibits CaMKII and PKC via DPP9 inhibition in cardiomyocytes. *Front. Physiol.* 9: 1622.

RESEARCH USE

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

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