SANTA CRUZ BIOTECHNOLOGY, INC.

EPDR1 (D-10): sc-393820

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The Power to Question

BACKGROUND

EPDR1 (ependymin related protein 1), also known as EPDR, UCC1 (up-regulated in colorectal cancer gene 1 protein), MERP1 or MERP-1 (mammalian ependymin-related protein 1 precursor), is a 244 amino acid type II transmembrane protein that is a member of the ependymin family. EPDR1 is expressed in various normal tissues with highest expression in adult bone marrow and umbilical cord. EPDR1 has a notable sequence similarity to ependymins (piscine glycoproteins that are synthesized in fibroblasts and secreted into cerebrospinal fluid), suggesting a conserved role between species. EPDR1 contains two glycosylation sites and a signal peptide and is thought to play a role in calcium-dependent cell adhesion. Two isoforms of EPDR1 exist due to alternative splicing events.

REFERENCES

1. Nimmrich, I., Erdmann, S., Melchers, U., Chtarbova, S., Finke, U., Hentsch, S., Hoffmann, I., Oertel, M., Hoffmann, W. and Müller, O. 2001. The novel ependymin related gene UCC1 is highly expressed in colorectal tumor cells. Cancer Lett. 165: 71-79.
2. Gregorio-King, C.C., McLeod, J.L., Collier, F.M., Collier, G.R., Bolton, K.A., Van Der Meer, G.J., Apostolopoulos, J. and Kirkland, M.A. 2002. MERP1: a mammalian ependymin-related protein gene differentially expressed in hematopoietic cells. Gene 286: 249-257.
3. Della Valle, M.C., Sleat, D.E., Sohar, I., Wen, T., Pintar, J.E., Jadot, M. and Lobel, P. 2006. Demonstration of lysosomal localization for the mammalian ependymin-related protein using classical approaches combined with a novel density shift method. J. Biol. Chem. 281: 35436-35445.
4. Bradley, S.P., Pahari, M., Uknis, M.E., Rastellini, C. and Cicalese, L. 2006. Gene expression profiles characterize early graft response in living donor small bowel transplantation: a case report. Transplant. Proc. 38: 1742-1743.
5. SWISS-PROT/TrEMBL (Q9UM22). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: EPDR1 (human) mapping to 7p14.1; Epdr1 (mouse) mapping to 13 A2.

SOURCE

EPDR1 (D-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 68-87 within an internal region of EPDR1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393820 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

EPDR1 (D-10) is recommended for detection of EPDR1 of mouse, rat and 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).

EPDR1 (D-10) is also recommended for detection of EPDR1 in additional species, including equine and bovine.

Suitable for use as control antibody for EPDR1 siRNA (h): sc-89709, EPDR1 siRNA (m): sc-144906, EPDR1 shRNA Plasmid (h): sc-89709-SH, EPDR1 shRNA Plasmid (m): sc-144906-SH, EPDR1 shRNA (h) Lentiviral Particles: sc-89709-V and EPDR1 shRNA (m) Lentiviral Particles: sc-144906-V.

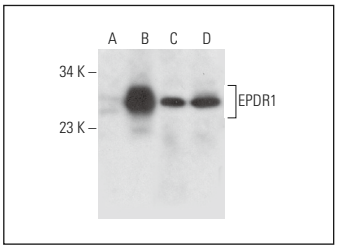
Molecular Weight of EPDR1: 25 kDa.

Positive Controls: EPDR1 (h): 293 Lysate: sc-112322, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

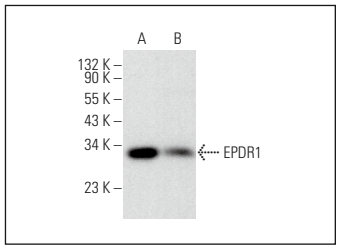
RECOMMENDED SUPPORT REAGENTS

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



EPDR1 (D-10): sc-393820. Western blot analysis of EPDR1 expression in non-transfected: sc-110760 (**A**) and human EPDR1 transfected: sc-112322 (**B**) 293 whole cell lysates and rat brain (**C**) and mouse brain (**D**) tissue extracts.



EPDR1 (D-10): sc-393820. Western blot analysis of EPDR1 expression in C3H/10T1/2 (**A**) and L6 (**B**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.