

EPDR1 (S8F): sc-81820

BACKGROUND

EPDR1 (ependymin related protein 1), also known as EPDR, UCC1 (upregulated 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.

SOURCE

EPDR1 (S8F) is a mouse monoclonal antibody raised against recombinant EPDR1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain 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.

RESEARCH USE

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

APPLICATIONS

EPDR1 (S8F) is recommended for detection of EPDR1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

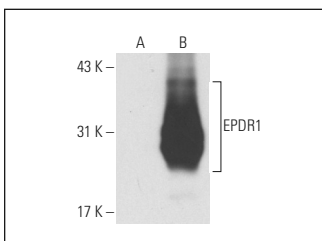
Molecular Weight of EPDR1: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or EPDR1 (h): 293 Lysate: sc-112322.

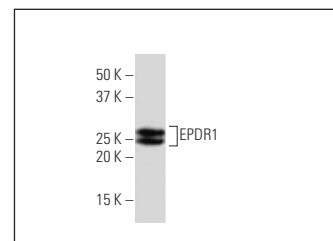
RECOMMENDED SUPPORT REAGENTS

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).

DATA



EPDR1 (S8F): sc-81820. Western blot analysis of EPDR1 expression in non-transfected: sc-110760 (A) and human EPDR1 transfected: sc-112322 (B) 293 whole cell lysates.



EPDR1 (S8F): sc-81820. Western blot analysis of EPDR1 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Chu, C.H., Chang, S.C., Wang, H.H., Yang, S.H., Lai, K.C. and Lee, T.C. 2018. Prognostic values of EPDR1 hypermethylation and its inhibitory function on tumor invasion in colorectal cancer. *Cancers* 10 pii: E393.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.