

# QPCTL (B-3): sc-515717

## BACKGROUND

QPCTL (glutamyl-peptide cyclotransferase-like protein) is a 382 amino acid single-pass membrane protein that belongs to the glutamyl-peptide cyclotransferase family. The QPCTL protein binds one zinc ion per subunit. The QPCTL gene is conserved in chimpanzee, canine, bovine, mouse, rat, zebrafish, *S. cerevisiae*, *K. lactis*, *E. gossypii*, *M. grisea* and *N. crassa*, and maps to human chromosome 19q13.32. Chromosome 19 consists of approximately 63 million bases and makes up over 2% of human genomic DNA. Chromosome 19 includes a diversity of interesting genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family, and Fc $\alpha$  receptors. Key genes for eye color and hair color also map to chromosome 19. Peutz-Jeghers syndrome, spinocerebellar ataxia type 6, the stroke disorder CADASIL, hypercholesterolemia and Insulin-dependent diabetes have been linked to chromosome 19.

## REFERENCES

- Zimmermann, W., et al. 1988. Chromosomal localization of the carcinoembryonic antigen gene family and differential expression in various tumors. *Cancer Res.* 48: 2550-2554.
- LaPoint, S.F., et al. 1995. Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *Acta Neurol. Scand.* 98: 259-267
- Trettel, F., et al. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
- Buchet-Poyau, K., et al. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. *Cytogenet. Genome Res.* 97: 171-178.

## CHROMOSOMAL LOCATION

Genetic locus: QPCTL (human) mapping to 19q13.32; Qpctl (mouse) mapping to 7 A3.

## SOURCE

QPCTL (B-3) is a mouse monoclonal antibody raised against amino acids 276-325 mapping near the C-terminus of QPCTL of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

QPCTL (B-3) is available conjugated to agarose (sc-515717 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515717 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515717 PE), fluorescein (sc-515717 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515717 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515717 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515717 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515717 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515717 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515717 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

QPCTL (B-3) is recommended for detection of QPCTL of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 QPCTL siRNA (h): sc-97698, QPCTL siRNA (m): sc-152612, QPCTL shRNA Plasmid (h): sc-97698-SH, QPCTL shRNA Plasmid (m): sc-152612-SH, QPCTL shRNA (h) Lentiviral Particles: sc-97698-V and QPCTL shRNA (m) Lentiviral Particles: sc-152612-V.

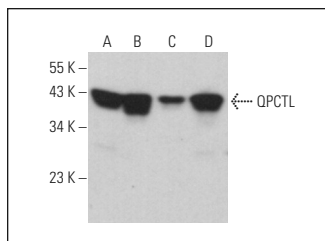
Molecular Weight of QPCTL: 43 kDa.

Positive Controls: NCI-H460 whole cell lysate: sc-364235, U-937 cell lysate: sc-2239 or COLO 320DM cell lysate: sc-2226.

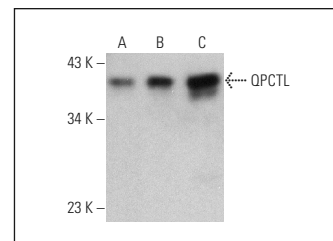
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



QPCTL (B-3): sc-515717. Western blot analysis of QPCTL expression in NCI-H460 (A), NCI-H1299 (B), COLO 205 (C) and SW480 (D) whole cell lysates.



QPCTL (B-3): sc-515717. Western blot analysis of QPCTL expression in NCI-H460 (A), COLO 320DM (B) and U-937 (C) whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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