

PCIF1 (A-9): sc-374406

BACKGROUND

PCIF1 (phosphorylated CTD-interacting factor 1), also known as C20orf67, is a 704 amino acid nuclear protein that contains one WW domain. Expressed throughout the body, PCIF1 is thought to play a role in transcription elongation and may be involved in coupling transcription to pre-mRNA processing, specifically by interacting with the phosphorylated carboxy-terminal domain (CTD) of Pol II. Additionally, PCIF1 interacts with and inhibits the activity of PDX-1 (pancreatic and duodenal homeobox-1), thereby regulating β cell differentiation and, ultimately, contributing to normal pancreatic development. Via its ability to influence pancreatic organogenesis, PCIF1 may be involved in the pathogenesis of diabetes and may be a potential target for the therapeutic treatment of diabetes.

REFERENCES

1. Kang, M.E., et al. 1993. RNA polymerases IIA and IIO have distinct roles during transcription from the TATA-less murine dihydrofolate reductase promoter. *J. Biol. Chem.* 268: 25033-25040.
2. Peshavaria, M., et al. 2000. The PDX-1 activation domain provides specific functions necessary for transcriptional stimulation in pancreatic β -cells. *Mol. Endocrinol.* 14: 1907-1917.
3. Emili, A., et al. 2002. Splicing and transcription-associated proteins PSF and p54^{nrb}/NonO bind to the RNA polymerase II CTD. *RNA* 8: 1102-1111.

CHROMOSOMAL LOCATION

Genetic locus: PCIF1 (human) mapping to 20q13.12; Pcif1 (mouse) mapping to 2 H3.

SOURCE

PCIF1 (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 213-251 within an internal region of PCIF1 of human origin.

PRODUCT

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

PCIF1 (A-9) is available conjugated to agarose (sc-374406 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374406 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374406 PE), fluorescein (sc-374406 FITC), Alexa Fluor[®] 488 (sc-374406 AF488), Alexa Fluor[®] 546 (sc-374406 AF546), Alexa Fluor[®] 594 (sc-374406 AF594) or Alexa Fluor[®] 647 (sc-374406 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374406 AF680) or Alexa Fluor[®] 790 (sc-374406 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374406 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

PCIF1 (A-9) is recommended for detection of PCIF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PCIF1 (A-9) is also recommended for detection of PCIF1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PCIF1 siRNA (h): sc-76088, PCIF1 siRNA (m): sc-152111, PCIF1 shRNA Plasmid (h): sc-76088-SH, PCIF1 shRNA Plasmid (m): sc-152111-SH, PCIF1 shRNA (h) Lentiviral Particles: sc-76088-V and PCIF1 shRNA (m) Lentiviral Particles: sc-152111-V.

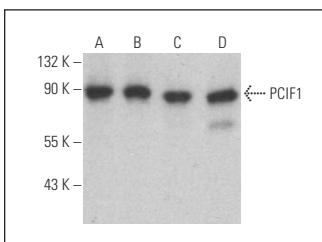
Molecular Weight of PCIF1: 80 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, Ramos cell lysate: sc-2216 or NCI-H929 whole cell lysate: sc-364786.

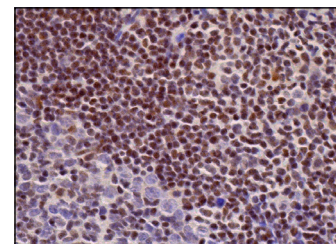
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PCIF1 (A-9): sc-374406. Western blot analysis of PCIF1 expression in BJAB (A), GA-10 (B), Ramos (C) and NCI-H929 (D) whole cell lysates.



PCIF1 (A-9): sc-374406. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nuclear staining of cells in germinal and non-germinal centers.

RESEARCH USE

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

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