

# FOP (B-1): sc-374340

## BACKGROUND

FOP, also known as FGFR1OP (FGFR1 oncogene partner), is a 399 amino acid protein that localizes to the centrosome and contains one LisH domain. Expressed ubiquitously with highest expression in kidney, heart, muscle, colon, liver, testis and pancreas, FOP functions as a homodimer that interacts with EB1 and CEP350 and is essential for anchoring microtubules to centrosomes. Chromosomal aberrations that involve the FOP gene are associated with the pathogenesis of stem cell myeloproliferative disorder (MPD), a condition that is characterized by eosinophilia and myeloid hyperplasia and ultimately leads to acute myeloid leukemia. FOP is expressed as multiple isoforms that are produced by alternative splicing events.

## REFERENCES

1. Popovici, C., et al. 1999. The t(6;8)(q27;p11) translocation in a stem cell myeloproliferative disorder fuses a novel gene, FOP, to fibroblast growth factor receptor 1. *Blood* 93: 1381-1389.
2. Reither, A., et al. 1999. The 8p11 myeloproliferative syndrome. *Med. Klin.* 94: 207-210.
3. Guasch, G., et al. 2001. 8p12 stem cell myeloproliferative disorder: the FOP-fibroblast growth factor receptor 1 fusion protein of the t(6;8) translocation induces cell survival mediated by mitogen-activated protein kinase and phosphatidylinositol 3-kinase/Akt/mTOR pathways. *Mol. Cell. Biol.* 21: 8129-8142.

## CHROMOSOMAL LOCATION

Genetic locus: FGFR1OP (human) mapping to 6q27; Fgfr1op (mouse) mapping to 17 A1.

## SOURCE

FOP (B-1) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of FOP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FOP (B-1) is available conjugated to agarose (sc-374340 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374340 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374340 PE), fluorescein (sc-374340 FITC), Alexa Fluor<sup>®</sup> 488 (sc-374340 AF488), Alexa Fluor<sup>®</sup> 546 (sc-374340 AF546), Alexa Fluor<sup>®</sup> 594 (sc-374340 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-374340 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-374340 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-374340 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## STORAGE

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

## APPLICATIONS

FOP (B-1) is recommended for detection of FOP 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), 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).

Suitable for use as control antibody for FOP siRNA (h): sc-75050, FOP siRNA (m): sc-75051, FOP shRNA Plasmid (h): sc-75050-SH, OP shRNA Plasmid (m): sc-75051-SH, FOP shRNA (h) Lentiviral Particles: sc-75050-V and FOP shRNA (m) Lentiviral Particles: sc-75051-V.

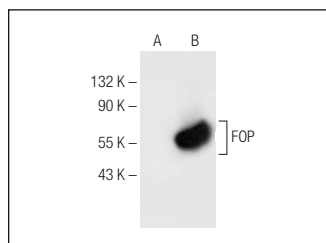
Molecular Weight of FOP: 43 kDa.

Positive Controls: human placenta extract: sc-363772, FOP (m2): 293T Lysate: sc-120307 or HeLa whole cell lysate: sc-2200.

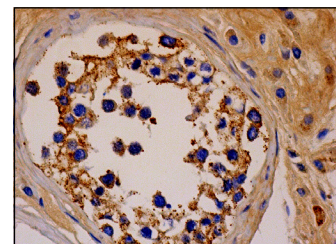
## RECOMMENDED SUPPORT REAGENTS

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<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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



FOP (B-1): sc-374340. Western blot analysis of FOP expression in non-transfected: sc-117752 (A) and mouse FOP transfected: sc-120307 (B) 293T whole cell lysates.



FOP (B-1): sc-374340. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

## SELECT PRODUCT CITATIONS

1. Miki, D., et al. 2019. Characterization of functional primary cilia in human induced pluripotent stem cell-derived neurons. *Neurochem. Res.* 44: 1736-1744.

## RESEARCH USE

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