

FOP (S-20): sc-82161

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

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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.
4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 605392. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Guasch, G., et al. 2004. FOP-FGFR1 tyrosine kinase, the product of a t(6;8) translocation, induces a fatal myeloproliferative disease in mice. *Blood* 103: 309-312.
6. Mikolajka, A., et al. 2006. Structure of the N-terminal domain of the FOP (FGFR1OP) protein and implications for its dimerization and centrosomal localization. *J. Mol. Biol.* 359: 863-875.
7. Yan, X., et al. 2006. A complex of two centrosomal proteins, CAP350 and FOP, cooperates with EB1 in microtubule anchoring. *Mol. Biol. Cell* 17: 634-644.

CHROMOSOMAL LOCATION

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

SOURCE

FOP (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FOP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82161 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FOP (S-20) is recommended for detection of FOP of mouse, rat and 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)], 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).

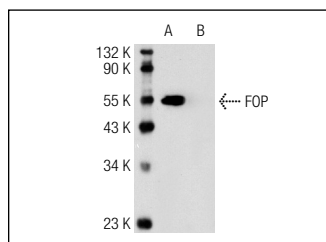
FOP (S-20) is also recommended for detection of FOP in additional species, including equine, canine, bovine and porcine.

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

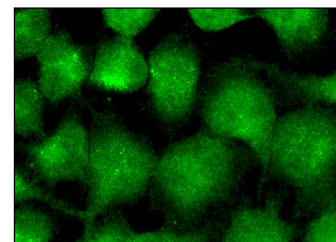
Molecular Weight of FOP: 43 kDa.

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

DATA



FOP (S-20): sc-82161. Western blot analysis of FOP expression in non-transfected: sc-117752 (A) and mouse FOP transfected: sc-120307 (B) 293T whole cell lysates.



FOP (S-20): sc-82161. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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 or our catalog for detailed protocols and support products.



Try **FOP (B-1): sc-374340**, our highly recommended monoclonal alternative to FOP (S-20).