

# FGFR1OP2 (E-15): sc-167892

## BACKGROUND

Acidic and basic fibroblast growth factors (FGFs) are members of a family of multifunctional polypeptide growth factors that stimulate proliferation of cells of mesenchymal, epithelial and neuroectodermal origin. Like other growth factors, FGFs act by binding and activating specific cell surface receptors which include the Flg receptor (FGFR-1) and the Bek receptor (FGFR-2), as well as FGFR-3, FGFR-4, FGFR-5 and FGFR-6. FGFR1OP2 (FGFR1 oncogene partner 2), also known as HSPC123, is a 253 amino acid cytoplasmic protein that is expressed in spleen, thymus and bone marrow and is involved in wound healing under normal cellular conditions. Additionally, FGFR1OP2 may also exist as an aberrant fusion protein with Flg and it is thought that the FGFR1OP2-Flg mutant may play a role in the pathogenesis of stem cell myeloproliferative disorder (MPD). Multiple isoforms of FGFR1OP2 exist due to alternative splicing events.

## REFERENCES

- Zhang, Q.H., et al. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34<sup>+</sup> hematopoietic stem/progenitor cells. *Genome Res.* 10: 1546-1560.
- Grand, E.K., et al. 2004. Identification of a novel gene, FGFR1OP2, fused to FGFR1 in 8p11 myeloproliferative syndrome. *Genes Chromosomes Cancer* 40: 78-83.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608858. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Gu, T.L., et al. 2006. Phosphotyrosine profiling identifies the KG-1 cell line as a model for the study of FGFR1 fusions in acute myeloid leukemia. *Blood* 108: 4202-4204.
- Dong, S., et al. 2007. 14-3-3 Integrates prosurvival signals mediated by the AKT and MAPK pathways in ZNF198-FGFR1-transformed hematopoietic cells. *Blood* 110: 360-369.
- Chase, A., et al. 2007. Activity of TKI258 against primary cells and cell lines with FGFR1 fusion genes associated with the 8p11 myeloproliferative syndrome. *Blood* 110: 3729-3734.

## CHROMOSOMAL LOCATION

Genetic locus: FGFR1OP2 (human) mapping to 12p11.23; Fgfr1op2 (mouse) mapping to 6 G3.

## SOURCE

FGFR1OP2 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FGFR1OP2 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-167892 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FGFR1OP2 (E-15) is recommended for detection of FGFR1OP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FGFR1OP2 (E-15) is also recommended for detection of FGFR1OP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FGFR1OP2 siRNA (h): sc-95695, FGFR1OP2 siRNA (m): sc-145167, FGFR1OP2 shRNA Plasmid (h): sc-95695-SH, FGFR1OP2 shRNA Plasmid (m): sc-145167-SH, FGFR1OP2 shRNA (h) Lentiviral Particles: sc-95695-V and FGFR1OP2 shRNA (m) Lentiviral Particles: sc-145167-V.

Molecular Weight of FGFR1OP2: 29 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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) or our catalog for detailed protocols and support products.