

Flg (S16): sc-31169

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. These include the Flg receptor (FGFR-1), the Bek receptor (FGFR-2), FGFR-3, FGFR-4, FGFR-5 and FGFR-6. These receptors usually contain an extracellular ligand-binding region containing three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic tyrosine kinase domain. The gene encoding human Flg maps to chromosome 8p11.23 and is alternatively spliced to produce several isoforms. Mutations in Flg are associated with Pfeiffer syndrome (a skeletal disorder characterized by craniosynostosis with deviation and enlargement of the thumbs and great toes), brachymesophalangy with phalangeal ankylosis and a varying degree of soft tissue syndactyly. The Flg gene is also involved in chromosomal translocations with ZNF198, CEP110 and FOP, which may lead to stem cell leukemia lymphoma (SCLL).

REFERENCES

1. Moscatelli, D., et al. 1987. Mr 25,000 heparin-binding protein from guinea pig brain is a high molecular weight form of basic fibroblast growth factor. *Proc. Natl. Acad. Sci. USA* 84: 5778-5782.
2. Rifkin, D.B., et al. 1989. Recent developments in the cell biology of fibroblast growth factor. *J. Cell Biol.* 109: 1-6.
3. Dionne, C.A., et al. 1990. Cloning and expression of two distinct high-affinity receptors cross-reacting with acidic and basic fibroblast growth factors. *EMBO J.* 9: 2685-2692.

CHROMOSOMAL LOCATION

Genetic locus: FGFR1 (human) mapping to 8p11.23; Fgfr1 (mouse) mapping to 8 A2.

SOURCE

Flg (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Flg 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-31169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Flg (S-16) is recommended for detection of Flg 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).

Flg (S-16) is also recommended for detection of Flg (FGFR-1) in additional species, including equine, canine, bovine, porcine and avian.

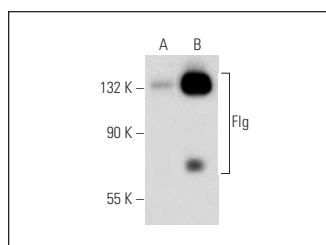
Suitable for use as control antibody for Flg siRNA (h): sc-29316, Flg siRNA (m): sc-29317, Flg shRNA Plasmid (h): sc-29316-SH, Flg shRNA Plasmid (m): sc-29317-SH, Flg shRNA (h) Lentiviral Particles: sc-29316-V, and Flg shRNA (m) Lentiviral Particles: sc-29317-V.

Molecular Weight (predicted) of Flg multiple isoforms: 7-92 kDa.

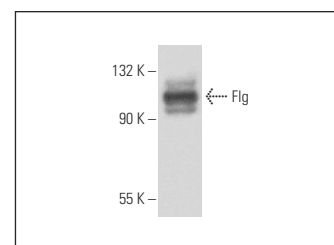
Molecular Weight (observed) of Flg isoforms: 48-140 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, WI-38 whole cell lysate: sc-364260 or Flg (h3): 293T Lysate: sc-113615.

DATA



Flg (S-16): sc-31169. Western blot analysis of Flg expression in non-transfected: sc-117752 (A) and human Flg transfected: sc-113615 (B) 293T whole cell lysates.



Flg (S-16): sc-31169. Western blot analysis of Flg expression in WI-38 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Frinchi, M., et al. 2010. FGF-2/FGFR1 neurotrophic system expression level and its basal activation do not account for the age-dependent decline of precursor cell proliferation in the subventricular zone of rat brain. *Brain Res.* 1358: 39-45.

RESEARCH USE

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



Try **Flg (M2F12): sc-57132** or **Flg (F-3): sc-393911**, our highly recommended monoclonal alternatives to Flg (S-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Flg (M2F12): sc-57132**.