

Flg (F-3): sc-393911



The Power to Question

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 trans-membrane 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).

CHROMOSOMAL LOCATION

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

SOURCE

Flg (F-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 111-122 within an N-terminal extracellular domain of Flg of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393911 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Flg (F-3) is recommended for detection of Flg (FGFR-1) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Flg (F-3) is also recommended for detection of Flg in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Flg siRNA (h): sc-29316, Flg siRNA (m): sc-29317, Flg siRNA (r): sc-61890, Flg shRNA Plasmid (h): sc-29316-SH, Flg shRNA Plasmid (m): sc-29317-SH, Flg shRNA Plasmid (r): sc-61890-SH, Flg shRNA (h) Lentiviral Particles: sc-29316-V, Flg shRNA (m) Lentiviral Particles: sc-29317-V and Flg shRNA (r) Lentiviral Particles: sc-61890-V.

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

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

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™ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

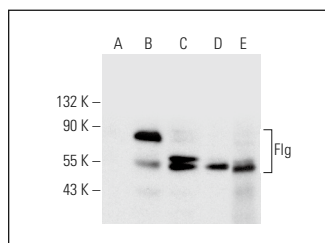


Fig (F-3): sc-393911. Western blot analysis of Flg expression in non-transfected 293T: sc-117752 (A), mouse Flg transfected 293T: sc-120285 (B), WI-38 (C), MOLT-4 (D) and K-562 (E) whole cell lysates.

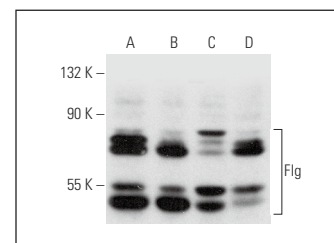


Fig (F-3): sc-393911. Western blot analysis of Flg expression in HEK293 (A), HeLa (B), Jurkat (C) and K-562 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Litwin, M., et al. 2015. The role of FGF2 in migration and tubulogenesis of endothelial progenitor cells in relation to pro-angiogenic growth factor production. *Mol. Cell. Biochem.* 410: 131-142.
2. Morales-Guadarrama, G., et al. 2022. AZD4547 and calcitriol synergistically inhibited BT-474 cell proliferation while modified stemness and tumorsphere formation. *J. Steroid Biochem. Mol. Biol.* 223: 106132.

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 for detailed protocols and support products.



See **Flg (M2F12): sc-57132** for Flg antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.