# SANTA CRUZ BIOTECHNOLOGY, INC.

# Flg (M5G10): sc-57133



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 8p12 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

- Moscatelli, D., et al. 1987. M<sub>r</sub> 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.
- 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 highaffinity receptors cross-reacting with acidic and basic fibroblast growth factors. EMBO J. 9: 2685-2692.
- Mansukhani, A., et al. 1992. Characterization of the murine Bek fibroblast growth factor (FGF) receptor: activation by three members of the FGF family and requirement for heparin. Proc. Natl. Acad. Sci. USA 89: 3305-3309.

### CHROMOSOMAL LOCATION

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

#### SOURCE

Flg (M5G10) is a mouse monoclonal antibody raised against the extracellular domain of Flg of human origin.

# PRODUCT

Each vial contains 200  $\mu g \; lgG_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

# **STORAGE**

Store at 4° C, \*\*D0 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 for detailed protocols and support products.

# APPLICATIONS

Flg (M5G10) is recommended for detection of Flg isoforms  $\alpha$  and  $\beta$  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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

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

#### DATA



Flg (M5G10): sc-57133. Western blot analysis of Flg expression in non-transfected: sc-117752 (**A**) and human Flg transfected: sc-113615 (**B**) 293T whole cel lysates.

#### **RESEARCH USE**

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



See **Fig (M2F12): sc-57132** for Fig antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647.