



Flg (h): 293T Lysate: sc-111512

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).

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.
4. 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.
5. Jin, Y., et al. 1994. Cloning and expression of fibroblast growth factor receptor-1 isoforms in the mouse heart: evidence for isoform switching during heart development. *J. Mol. Cell Cardiol.* 26: 1449-1459.
6. Muenke, M., et al. 1994. A common mutation in the fibroblast growth factor receptor 1 gene in Pfeiffer syndrome. *Nat. Genet.* 8: 269-274.
7. Fioretos, T., et al. 2001. Fusion of the Bcr and the fibroblast growth factor receptor-1 (FGFR-1) genes as a result of t(8;22)(p11;q11) in a myeloproliferative disorder: the first fusion gene involving Bcr but not Abl. *Genes Chromosomes Cancer* 32: 302-310.
8. Grand, E.K., et al. 2004. Identification of a novel gene, FGFR10P2, fused to FGFR1 in 8p11 myeloproliferative syndrome. *Genes Chromosomes Cancer* 40: 78-83.
9. Furdui, C.M., et al. 2006. Autophosphorylation of FGFR-1 kinase is mediated by a sequential and precisely ordered reaction. *Mol. Cell* 21: 711-717.

CHROMOSOMAL LOCATION

Genetic locus: FGFR1 (human) mapping to 8p11.23.

RESEARCH USE

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

PRODUCT

Flg (h): 293T Lysate represents a lysate of human Flg transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Flg (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Flg antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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