

FLRT3 (A-3): sc-514482

BACKGROUND

FLRT3 (fibronectin leucine rich transmembrane protein 3), also known as KIAA1469, is a 649 amino acid single-pass type I membrane protein that contains one fibronectin type-III domain and ten leucine-rich repeats and belongs to the fibronectin leucine rich transmembrane protein (FLRT) family. Expressed in heart, liver, lung, kidney, pancreas, brain, placenta and skeletal muscle, FLRT3 is thought to be involved in receptor signaling events and may play a role in both cell adhesion neurite outgrowth. Defects in the gene encoding mouse FLRT3 may lead to ventral closure, headfold fusion and endoderm migration defects, suggesting that FLRT3 is important for proper cell differentiation and development. FLRT3 exists as multiple alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 20.

REFERENCES

1. Lacy, S.E., et al. 1999. Identification of FLRT1, FLRT2, and FLRT3: a novel family of transmembrane leucine-rich repeat proteins. *Genomics* 62: 417-426.
2. Tsuji, L., et al. 2004. FLRT3, a cell surface molecule containing LRR repeats and a FNIII domain, promotes neurite outgrowth. *Biochem. Biophys. Res. Commun.* 313: 1086-1091.
3. Robinson, M., et al. 2004. FLRT3 is expressed in sensory neurons after peripheral nerve injury and regulates neurite outgrowth. *Mol. Cell. Neurosci.* 27: 202-214.
4. Böttcher, R.T., et al. 2004. The transmembrane protein XFLRT3 forms a complex with FGF receptors and promotes FGF signalling. *Nat. Cell Biol.* 6: 38-44.

CHROMOSOMAL LOCATION

Genetic locus: FLRT3 (human) mapping to 20p12.1.

SOURCE

FLRT3 (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 491-513 within an extracellular domain of FLRT3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FLRT3 (A-3) is available conjugated to agarose (sc-514482 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514482 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514482 PE), fluorescein (sc-514482 FITC), Alexa Fluor[®] 488 (sc-514482 AF488), Alexa Fluor[®] 546 (sc-514482 AF546), Alexa Fluor[®] 594 (sc-514482 AF594) or Alexa Fluor[®] 647 (sc-514482 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-514482 AF680) or Alexa Fluor[®] 790 (sc-514482 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514482 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

FLRT3 (A-3) is recommended for detection of FLRT3 of 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).

Suitable for use as control antibody for FLRT3 siRNA (h): sc-75038, FLRT3 shRNA Plasmid (h): sc-75038-SH and FLRT3 shRNA (h) Lentiviral Particles: sc-75038-V.

Molecular Weight of FLRT3: 90 kDa.

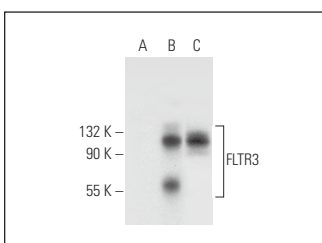
Positive Controls: FLRT3 (h2): 293T Lysate: sc-173180 or human lung extract: sc-363767.

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



FLRT3 (A-3): sc-514482. Western blot analysis of FLRT3 expression in non-transfected: sc-117752 (A) and human FLRT3 transfected: sc-173180 (B) 293T whole cell lysates and human lung tissue extract (C).

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.

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