SANTA CRUZ BIOTECHNOLOGY, INC.

FLRT2 (G-17): sc-82152

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The Power to Question

BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic α/β horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. FLRT2 (fibronectin leucine rich transmembrane protein 2), is a 660 amino acid single-pass type I membrane protein that is expressed in pancreas, skeletal muscle, brain and heart. Comprised of one fibronectin type-III domain and ten LRR (leucine-rich) repeats, FLRT2 may play a role in cell adhesion and/or receptor signaling. It is suggested that FLRT2 is involved in mediating events such as NCC (neural crest cell) migration, chondrogenesis and epithelial-mesenchymal interactions during craniofacial development.

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.
5. Enkhbayar, P., et al. 2004. Structural principles of leucine-rich repeat (LRR) proteins. Proteins 54: 394-403.
6. Haines, B.P., et al. 2006. Regulated expression of FLRT genes implies a functional role in the regulation of FGF signalling during mouse development. Dev. Biol. 297: 14-25.
7. Karaulanov, E.E., et al. 2006. A role for fibronectin-leucine-rich transmembrane cell-surface proteins in homotypic cell adhesion. EMBO Rep. 7: 283-290.
8. Maretto, S., et al. 2008. Ventral closure, headfold fusion and definitive endoderm migration defects in mouse embryos lacking the fibronectin leucine-rich transmembrane protein FLRT3. Dev. Biol. 318: 184-193.

CHROMOSOMAL LOCATION

Genetic locus: FLRT2 (human) mapping to 14q31.3; Flrt2 (mouse) mapping to 12 E.

SOURCE

FLRT2 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of FLRT2 of human origin.

RESEARCH USE

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

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-82152 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FLRT2 (G-17) is recommended for detection of FLRT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with family members FLRT1 or FLRT3.

FLRT2 (G-17) is also recommended for detection of FLRT2 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for FLRT2 siRNA (h): sc-75036, FLRT2 siRNA (m): sc-75037, FLRT2 shRNA Plasmid (h): sc-75036-SH, FLRT2 shRNA Plasmid (m): sc-75037-SH, FLRT2 shRNA (h) Lentiviral Particles: sc-75036-V and FLRT2 shRNA (m) Lentiviral Particles: sc-75037-V.

Molecular Weight of FLRT2: 74 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.