

CELSR2 (P-20): sc-46845

BACKGROUND

Drosophila Flamingo is a seven pass transmembrane cadherin that is necessary for dendritic patterning and axon guidance. Flamingo mammalian homologs play similar roles in neuronal development, during which they play an important role in cell-cell signaling. Cadherin EGF LAG seven pass G-type receptors (CELSRs) are multi-pass membrane proteins that belong to the G protein-coupled receptor family of proteins. Silencing CELSR2 gene expression results in significant simplification of dendritic arbors of cortical pyramidal neurons and Purkinje neurons, which may be due to branch retraction. In mouse, CELSR1, CELSR2 and CELSR3 are expressed in the nervous system at early developmental stages, and show expression patterns in the developing CNS. CELSR2 is distributed at intercellular boundaries in the whisker and on processes of neuronal cells such as hippocampal pyramidal cells, Purkinje cells and olfactory neurons.

REFERENCES

1. Vincent, J.B., et al. 2000. The human homologue of Flamingo, EGFL2, encodes a brain-expressed large cadherin-like protein with epidermal growth factor-like domains and maps to chromosome 1p13.3-p21.1. *DNA Res.* 7: 233-235.
2. Tissir, F., et al. 2002. Developmental expression profiles of CELSR (Flamingo) genes in the mouse. *Mech. Dev.* 112: 157-160.
3. Curtin, J.A., et al. 2003. Mutation of CELSR1 disrupts planar polarity of inner ear hair cells and causes severe neural tube defects in the mouse. *Curr. Biol.* 13: 1129-1133.
4. Georgieva, L., et al. 2003. Genetic variation in the seven-pass transmembrane cadherin CELSR1: lack of association with schizophrenia. *Psychiatr. Genet.* 13: 103-106.
5. Formstone, C.J., et al. 2005. Expression of the CELSR/Flamingo homologue, c-fmi1, in the early avian embryo indicates a conserved role in neural tube closure and additional roles in asymmetry and somitogenesis. *Dev. Dyn.* 232: 408-413.
6. Beall, S.A., et al. 2005. Hybrid GPCR/cadherin (CELSR) proteins in rat testis are expressed with cell type specificity and exhibit differential Sertoli cell-germ-cell adhesion activity. *J. Androl.* 26: 529-538.

CHROMOSOMAL LOCATION

Genetic locus: CELSR2 (human) mapping to 1p13.3; *Celsr2* (mouse) mapping to 3 F3.

SOURCE

CELSR2 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of CELSR2 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-46845 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CELSR2 (P-20) is recommended for detection of CELSR2 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).

CELSR2 (P-20) is also recommended for detection of CELSR2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CELSR2 siRNA (h): sc-60351, CELSR2 siRNA (m): sc-60352, CELSR2 shRNA Plasmid (h): sc-60351-SH, CELSR2 shRNA Plasmid (m): sc-60352-SH, CELSR2 shRNA (h) Lentiviral Particles: sc-60351-V and CELSR2 shRNA (m) Lentiviral Particles: sc-60352-V.

Molecular Weight of CELSR2: 250 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.

RESEARCH USE

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

PROTOCOLS

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