

# CELSR3 (2F7): sc-293381

## 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: CELSR3 (human) mapping to 3p21.31.

## SOURCE

CELSR3 (2F7) is a mouse monoclonal antibody raised against amino acids 71-180 of CELSR3 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

CELSR3 (2F7) is recommended for detection of CELSR3 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

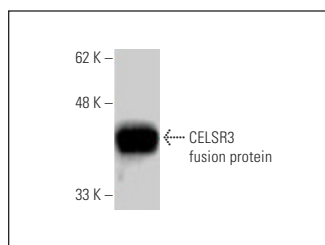
Suitable for use as control antibody for CELSR3 siRNA (h): sc-60353, CELSR3 shRNA Plasmid (h): sc-60353-SH and CELSR3 shRNA (h) Lentiviral Particles: sc-60353-V.

Molecular Weight of CELSR3: 358 kDa.

## 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).

## DATA



CELSR3 (2F7): sc-293381. Western blot analysis of human recombinant CELSR3 fusion protein.

## 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](http://www.scbt.com) for detailed protocols and support products.