

## FEZF1 (T-13): sc-137999

### BACKGROUND

Olfactory sensory neurons contain olfactory receptors, which are G protein-coupled receptor proteins that localize to the cilia and display affinity for and bind to a variety of odor molecules. Olfactory neurons send their axons from the olfactory epithelium to the olfactory bulb, which is covered by the CNS basal lamina. FEZF1 (fez family zinc finger protein 1), also known as forebrain embryonic zinc finger and zinc finger protein 312B, is a 475 amino acid nuclear protein that is expressed in the olfactory epithelium and hypothalamus of mice. In FEZF1-deficient mice, axons of olfactory neurons do not reach the olfactory bulb, suggesting that FEZF1 is required for the penetration of olfactory axons through the basal lamina before innervation of the olfactory bulb. When FEZF1 translocates to the nucleus, it induces KRAS overexpression, resulting in activation of ERK-signaling. Overexpression of FEZF1 leads to accelerated proliferation in cultured cells and increased tumor mass in mice. There are three isoforms of FEZF1 that are produced as a result of alternative splicing events.

### REFERENCES

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- Kurrasch, D.M., et al. 2007. The neonatal ventromedial hypothalamus transcriptome reveals novel markers with spatially distinct patterning. *J. Neurosci.* 27: 13624-13634.
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- Shimizu, T. and Hibi, M. 2009. Formation and patterning of the forebrain and olfactory system by zinc-finger genes FEZF1 and FEZF2. *Dev. Growth Differ.* 51: 221-231.
- Watanabe, Y., et al. 2009. FEZF1 is required for penetration of the basal lamina by olfactory axons to promote olfactory development. *J. Comp. Neurol.* 515: 565-584.
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### CHROMOSOMAL LOCATION

Genetic locus: FEZF1 (human) mapping to 7q31.32; *Fezf1* (mouse) mapping to 6 A3.1.

### SOURCE

FEZF1 (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FEZF1 of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137999 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

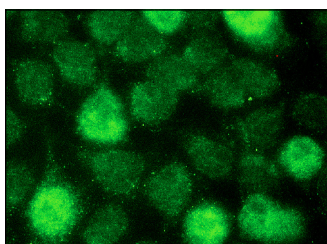
FEZF1 (T-13) is recommended for detection of FEZF1 isoforms 1-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EZF1 (T-13) is also recommended for detection of FEZF1 isoforms 1-3 in additional species, including bovine.

Suitable for use as control antibody for FEZF1 siRNA (h): sc-89824, FEZF1 siRNA (m): sc-145162, FEZF1 shRNA Plasmid (h): sc-89824-SH, FEZF1 shRNA Plasmid (m): sc-145162-SH, FEZF1 shRNA (h) Lentiviral Particles: sc-89824-V and FEZF1 shRNA (m) Lentiviral Particles: sc-145162-V.

Molecular Weight of FEZF1: 52 kDa.

### DATA



FEZF1 (T-13): sc-137999. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

### 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.

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Satisfaction  
Guaranteed

Try **FEZF1 (F-4): sc-515487**, our highly recommended monoclonal alternative to FEZF1 (T-13).