# SANTA CRUZ BIOTECHNOLOGY, INC.

# FEZF2 (T-12): sc-100260



## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. FEZF2 (FEZ family zinc finger 2), also known as FEZ, TOF, FEZL, FKSG36 or ZNF312, is a 459 amino acid nuclear protein that belongs to the Krüppel C2H2-type zinc-finger protein family. Considered a transcription repressor, FEZF2 is required for the specification of corticospinal motor neurons and other subcerebral projection neurons. FEZF2 may play a role in layer and neuronal subtype-specific patterning of subcortical projections and axonal fasciculation. FEZF2 controls the development of dendritic arborization and spines of large layer V pyramidal neurons.

### REFERENCES

- Molyneaux, B.J., et al. 2007. Molecular development of corticospinal motor neuron circuitry. Novartis Found. Symp. 288: 3-15.
- 2. Leone, D.P., et al. 2008. The determination of projection neuron identity in the developing cerebral cortex. Curr. Opin. Neurobiol. 18: 28-35.
- Russek-Blum, N., et al. 2008. Dopaminergic neuronal cluster size is determined during early forebrain patterning. Development 135: 3401-3413.
- Chen, B., et al. 2008. The FEZF2-CTIP2 genetic pathway regulates the fate choice of subcortical projection neurons in the developing cerebral cortex. Proc. Natl. Acad. Sci. USA 105: 11382-11387.
- Kwan, K.Y., et al. 2008. SOX5 postmitotically regulates migration, postmigratory differentiation, and projections of subplate and deep-layer neocortical neurons. Proc. Natl. Acad. Sci. USA 105: 16021-16026.
- Song, I.S., et al. 2009. Human ZNF312b promotes the progression of gastric cancer by transcriptional activation of the K-Ras gene. Cancer Res. 69: 3131-3139.
- 7. Shimizu, T., et al. 2009. Formation and patterning of the forebrain and olfactory system by zinc-finger genes FEZF1 and FEZF2. Dev. Growth Differ. 51: 221-231.
- Berberoglu, M.A., et al. 2009. FEZF2 expression delineates cells with proliferative potential and expressing markers of neural stem cells in the adult zebrafish brain. Gene Expr. Patterns 9: 411-422.
- 9. Ruby, K.M. and Zheng, B. 2009. Gene targeting in a HUES line of human embryonic stem cells via electroporation. Stem Cells 27: 1496-1506.

### CHROMOSOMAL LOCATION

Genetic locus: FEZF2 (human) mapping to 3p14.2; Fezf2 (mouse) mapping to 14 A1.

## SOURCE

FEZF2 (T-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FEZF2 of human origin.

## PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-100260 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

FEZF2 (T-12) is recommended for detection of FEZF2 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 other ZNF family members.

FEZF2 (T-12) is also recommended for detection of FEZF2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FEZF2 siRNA (h): sc-78236, FEZF2 siRNA (m): sc-155683, FEZF2 shRNA Plasmid (h): sc-78236-SH, FEZF2 shRNA Plasmid (m): sc-155683-SH, FEZF2 shRNA (h) Lentiviral Particles: sc-78236-V and FEZF2 shRNA (m) Lentiviral Particles: sc-155683-V.

Molecular Weight of FEZF2 isoforms: 49/31 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluo-rescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

#### **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.