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### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## FEZF2 siRNA (m): sc-155683

### 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 C<sub>2</sub>H<sub>2</sub>-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

1. Molyneaux, B.J., Arlotta, P. and Macklis, J.D. 2007. Molecular development of corticospinal motor neuron circuitry. *Novartis Found. Symp.* 288: 3-15.
2. Leone, D.P., Srinivasan, K., Chen, B., Alcamo, E. and McConnell, S.K. 2008. The determination of projection neuron identity in the developing cerebral cortex. *Curr. Opin. Neurobiol.* 18: 28-35.
3. Russek-Blum, N., Gutnick, A., Nabel-Rosen, H., Blechman, J., Staudt, N., Dorsky, R.I., Houart, C. and Levkowitz, G. 2008. Dopaminergic neuronal cluster size is determined during early forebrain patterning. *Development* 135: 3401-3413.
4. Chen, B., Wang, S.S., Hattox, A.M., Rayburn, H., Nelson, S.B. and McConnell, S.K. 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.
5. Kwan, K.Y., Lam, M.M., Krsnik, Z., Kawasawa, Y.I., Lefebvre, V. and Sestan, N. 2008. SOX5 postmitotically regulates migration, postmigratory differentiation, and projections of subplate and deep-layer neocortical neurons. *Proc. Natl. Acad. Sci. USA* 105: 16021-16026.
6. Song, I.S., Oh, N.S., Kim, H.T., Ha, G.H., Jeong, S.Y., Kim, J.M., Kim, D.I., Yoo, H.S., Kim, C.H. and Kim, N.S. 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. 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.
8. Berberoglu, M.A., Dong, Z., Mueller, T. and Guo, S. 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

### CHROMOSOMAL LOCATION

Genetic locus: Fezf2 (mouse) mapping to 14 A1.

### PRODUCT

FEZF2 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FEZF2 shRNA Plasmid (m): sc-155683-SH and FEZF2 shRNA (m) Lentiviral Particles: sc-155683-V as alternate gene silencing products.

For independent verification of FEZF2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-155683A, sc-155683B and sc-155683C.

### STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

### APPLICATIONS

FEZF2 siRNA (m) is recommended for the inhibition of FEZF2 expression in mouse cells.

### SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

### RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FEZF2 gene expression knockdown using RT-PCR Primer: FEZF2 (m)-PR: sc-155683-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

### RESEARCH USE

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