

## ZNF312 siRNA (h): sc-78236

### 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. ZNF312, also known as FEZ, TOF, FEZL, FKSG36 or FEZF2 (FEZ family zinc finger 2), 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, ZNF312 is required for the specification of corticospinal motor neurons and other subcerebral projection neurons. ZNF312 may play a role in layer and neuronal subtype-specific patterning of subcortical projections and axonal fasciculation. ZNF312 controls the development of dendritic arborization and spines of large layer V pyramidal neurons.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: FEZF2 (human) mapping to 3p14.2.

### PRODUCT

ZNF312 siRNA (h) 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 ZNF312 shRNA Plasmid (h): sc-78236-SH and ZNF312 shRNA (h) Lentiviral Particles: sc-78236-V as alternate gene silencing products.

For independent verification of ZNF312 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-78236A, sc-78236B and sc-78236C.

### 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

ZNF312 siRNA (h) is recommended for the inhibition of ZNF312 expression in human 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 ZNF312 gene expression knockdown using RT-PCR Primer: ZNF312 (h)-PR: sc-78236-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.