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MAPK15 siRNA (m): sc-149259

BACKGROUND

MAPK15 (mitogen-activated protein kinase 15, ERK 8) is a 544 amino acid protein that belongs to the CMGC Ser/Thr protein kinase family (MAP kinase subfamily). MAP kinases play a significant role in many biological processes, including cell adhesion and spreading, cell differentiation and apoptosis. MAPK15 functions as a catalytic kinase using ATP to produce ADP and a phosphoprotein. A TXY motif, containing one threonine and one tyrosine residue, activates the MAP kinases upon phosphorylation. MAPK15 is a ubiquitously expressed protein with highest expression found in lung and kidney.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Mapk15 (mouse) mapping to 15 D3.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

MAPK15 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MAPK15 shRNA Plasmid (m): sc-149259-SH and MAPK15 shRNA (m) Lentiviral Particles: sc-149259-V as alternate gene silencing products.

For independent verification of MAPK15 (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-149259A, sc-149259B and sc-149259C.

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

APPLICATIONS

MAPK15 siRNA (m) is recommended for the inhibition of MAPK15 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 μ M in 66 μ 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 MAPK15 gene expression knockdown using RT-PCR Primer: MAPK15 (m)-PR: sc-149259-PR (20 μ 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.