SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

MESP1 siRNA (m): sc-149373

BACKGROUND

MESP1 (mesoderm posterior 1 homolog), also known as bHLHc5, is a 268 amino acid protein that contains one basic helix-loop-helix (bHLH) domain, a motif that mediates protein dimerization and can bind to the E-box sequence of DNA. Localized to the nucleus, MESP1 functions as a transcription factor that, via its bHLH domain, participates in the epithelialization and the development of the cardiac and somitic mesoderm. MESP1 is highly expressed during gastrulation and somitogenesis and is necessary for the formation of single heart tubes during cardiac maturation. Early detection of MESP1 may be an indicator of the formation of cardiac precursor cells in developing embryos. Additionally, MESP1 plays a role in the rostrocaudal patterning of the somites, an event that influences select Notch signaling pathways.

REFERENCES

1. Saga, Y., et al. 1996. MESP1: a novel basic helix-loop-helix protein expressed in the nascent mesodermal cells during mouse gastrulation. Development 122: 2769-2778.
2. Saga, Y., et al. 1999. MESP1 is expressed in the heart precursor cells and required for the formation of a single heart tube. Development 126: 3437-3447.
3. Kitajima, S., et al. 2000. MESP1 and MESP2 are essential for the development of cardiac mesoderm. Development 127: 3215-3226.
4. Saga, Y., et al. 2000. Mesp1 expression is the earliest sign of cardiovascular development. Trends Cardiovasc. Med. 10: 345-352.
5. Haraguchi, S., et al. 2001. Transcriptional regulation of MESP1 and MESP2 genes: differential usage of enhancers during development. Mech. Dev. 108: 59-69.
6. Whittock, N.V., et al. 2004. Mutated MESP2 causes spondylocostal dysostosis in humans. Am. J. Hum. Genet. 74: 1249-1254.
7. Lindsley, R.C., et al. 2008. MESP1 coordinately regulates cardiovascular fate restriction and epithelial-mesenchymal transition in differentiating ESCs. Cell Stem Cell 3: 55-68.
8. Bondue, A., et al. 2008. MESP1 acts as a master regulator of multipotent cardiovascular progenitor specification. Cell Stem Cell 3: 69-84.
9. David, R., et al. 2008. MESP1 drives vertebrate cardiovascular differentiation through Dkk-1-mediated blockade of Wnt-signalling. Nat. Cell Biol. 10: 338-345.

CHROMOSOMAL LOCATION

Genetic locus: Mesp1 (mouse) mapping to 7 D3.

PRODUCT

MESP1 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MESP1 shRNA Plasmid (m): sc-149373-SH and MESP1 shRNA (m) Lentiviral Particles: sc-149373-V as alternate gene silencing products.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

MESP1 siRNA (m) is recommended for the inhibition of MESP1 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 µM in 66 µl. 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.

GENE EXPRESSION MONITORING

MESP1 (JH.12): sc-130461 is recommended as a control antibody for monitoring of MESP1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MESP1 gene expression knockdown using RT-PCR Primer: MESP1 (m)-PR: sc-149373-PR (20 µl). 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.

PROTOCOLS

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