SANTA CRUZ BIOTECHNOLOGY, INC.

WECHE siRNA (m): sc-39373

BACKGROUND

WECHE (for weird chemokine, also known as Lungkine or small inducible cytokine B15 precursor) is a endothelial-associated chemokine. WECHE was originally isolated from aorta-gonad-mesonephros (AGM)-derived endothelial cell lines. WECHE contains an ELR sequence after the N-terminal signal sequence like other C-X-C chemokines, but WECHE contains an unique extended C-terminus. WECHE is selectively expressed in lung bronchoepithelial cells and in DAS (dorsal aorta stroma) 104-4 and DAS 104-8 cell lines. WECHE inhibits erythroid differentiation and progenitor cell expansion. WECHE is secreted into the airway spaces and induces the *in vitro* and *in vivo* migration of neutrophils, and may be involved in lung-specific neutrophil trafficking and lung development.

REFERENCES

1. Dzierzak, E., et al. 1995. Mouse embryonic hematopoiesis. Trends Genet. 11: 359-366.
2. Zon, L. 1995. Developmental biology of hematopoiesis. Blood 86: 2876-2891.
3. Peault, B. 1996. Hematopoietic stem cell emergence in embryonic life: developmental hematology revisited. J. Hematother. 5: 513-520.
4. Medvinsky, A., et al. 1996. Definitive hematopoiesis is autonomously initiated in the AGM region. Cell 86: 897-906.
5. Ohneda, O., et al. 1998. Hematopoietic stem cell maintenance and differentiation are supported by embryonic aorta-gonad-mesonephros region-derived endothelium. Blood 92: 908-919.
6. Rossi, D.L., et al. 1999. Lungkine, a novel C-X-C chemokine, specifically expressed by lung bronchoepithelial cells. J. Immunol. 162: 5490-5497.
7. Ohneda, O., et al. 2000. WECHE: a novel hematopoietic regulatory factor. Immunity 12: 141-150.

CHROMOSOMAL LOCATION

Genetic locus: Cxcl15 (mouse) mapping to 5 E1.

PRODUCT

WECHE 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see WECHE shRNA Plasmid (m): sc-39373-SH and WECHE shRNA (m) Lentiviral Particles: sc-39373-V as alternate gene silencing products.

For independent verification of WECHE (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-39373A, sc-39373B and sc-39373C.

PROTOCOLS

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

WECHE siRNA (m) is recommended for the inhibition of WECHE 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor WECHE gene expression knockdown using RT-PCR Primer: WECHE (m)-PR: sc-39373-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Bell, D., et al. 2016. Endothelium-derived intermedin/adrenomedullin-2 protects human ventricular cardiomyocytes from ischaemia-reoxygenation injury predominantly via the AM_1 receptor. Peptides 76: 1-13.

RESEARCH USE

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