SANTA CRUZ BIOTECHNOLOGY, INC.

D6Wsu116e siRNA (m): sc-142847

BACKGROUND

D6Wsu116e (DNA segment, Chr 6, Wayne State University 116, expressed) is a 1,334 amino acid early endosome membrane protein that belongs to the FAM21 family and exists as two alternatively spliced isoforms. Directly interacting with FAM39E, D6Wsu116e is a component of the WASH complex. The WASH complex is present at the surface of endosomes, and it recruits and activates the Arp2/3 complex to induce actin polymerization. The WASH complex plays a key role in the fission of tubules that serve as transport intermediates during endosome sorting. D6Wsu116e most likely mediates the recruitment of the complex to endosome membranes. The gene that encodes D6Wsu116e consists of more than 54,000 bases and maps to mouse chromosome 6 E3.

REFERENCES

1. Chesler, E.J., et al. 2005. Complex trait analysis of gene expression uncovers polygenic and pleiotropic networks that modulate nervous system function. Nat. Genet. 37: 233-242.
2. Pilvi, T.K., et al. 2008. Effect of dietary calcium and dairy proteins on the adipose tissue gene expression profile in diet-induced obesity. J. Nutrigenet. Nutrigenomics 1: 240-251.
3. Gomez, T.S., et al. 2009. A FAM21-containing WASH complex regulates retromer-dependent sorting. Dev. Cell 17: 699-711.
4. Derivery, E., et al. 2009. The Arp2/3 activator WASH controls the fission of endosomes through a large multiprotein complex. Dev. Cell 17: 712-723.
5. Rottner, K., et al. 2010. WASH, WHAMM and JMY: regulation of Arp2/3 complex and beyond. Trends Cell Biol. 20: 650-661.
6. Staron, M., et al. 2011. Heat-shock protein gp96/grp94 is an essential chaperone for the platelet glycoprotein Ib-IX-V complex. Blood 117: 7136-7144.

CHROMOSOMAL LOCATION

Genetic locus: D6Wsu116e (mouse) mapping to 6 E3.

PRODUCT

D6Wsu116e 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 D6Wsu116e shRNA Plasmid (m): sc-142847-SH and D6Wsu116e shRNA (m) Lentiviral Particles: sc-142847-V as alternate gene silencing products.

For independent verification of D6Wsu116e (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-142847A, sc-142847B and sc-142847C.

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

D6Wsu116e siRNA (m) is recommended for the inhibition of D6Wsu116e 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 D6Wsu116e gene expression knockdown using RT-PCR Primer: D6Wsu116e (m)-PR: sc-142847-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.