



## UEV3 siRNA (h): sc-96539

### BACKGROUND

UEV3 (Ubiquitin-conjugating enzyme E2 variant 3), also known as EV and lactate/malate dehydrogenase domain-containing protein, is a 471 amino acid protein that contains one UEV (ubiquitin E2 variant) domain, which typically interacts with ubiquitin. UEV3 is thought to be a paralogue of tsg 101, a protein that exerts regulatory effects on E2 activity in cellular ubiquitination processes. With amino-terminal homology to the catalytic domain of ubiquitin-conjugating enzymes, it is thought that UEV3 may function as a negative regulator of polyubiquitination. UEV3 is expressed in various colon carcinoma cell lines, carcinomas of the uterine cervix and peripheral blood leukocytes as well as normal colon and cervical epithelium.

### REFERENCES

1. Sancho, E., Vilá, M.R., Sánchez-Pulido, L., Lozano, J.J., Paciucci, R., Nadal, M., Fox, M., Harvey, C., Bercovich, B., Loukili, N., Ciechanover, A., Lin, S.L., Sanz, F., Estivill, X., Valencia, A. and Thomson, T.M. 1998. Role of UEV-1, an inactive variant of the E2 ubiquitin-conjugating enzymes, in *in vitro* differentiation and cell cycle behavior of HT-29-M6 intestinal mucosecretory cells. *Mol. Cell. Biol.* 18: 576-589.
2. Kloor, M., Bork, P., Duwe, A., Klaes, R., von Knebel Doeberitz, M. and Ridder, R. 2002. Identification and characterization of UEV3, a human cDNA with similarities to inactive E2 ubiquitin-conjugating enzymes. *Biochim. Biophys. Acta* 1579: 219-224.
3. Sundquist, W.I., Schubert, H.L., Kelly, B.N., Hill, G.C., Holton, J.M. and Hill, C.P. 2004. Ubiquitin recognition by the human TSG101 protein. *Mol. Cell* 13: 783-789.
4. Andersen, K.M., Hofmann, K. and Hartmann-Petersen, R. 2005. Ubiquitin-binding proteins: similar, but different. *Essays Biochem.* 41: 49-67.
5. Palencia, A., Martinez, J.C., Mateo, P.L., Luque, I. and Camara-Artigas, A. 2006. Structure of human TSG101 UEV domain. *Acta Crystallogr. D Biol. Crystallogr.* 62: 458-464.
6. Hurley, J.H., Lee, S. and Prag, G. 2006. Ubiquitin-binding domains. *Biochem. J.* 399: 361-372.
7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610985. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

### CHROMOSOMAL LOCATION

Genetic locus: UEVLD (human) mapping to 11p15.1.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

### PRODUCT

UEV3 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 UEV3 shRNA Plasmid (h): sc-96539-SH and UEV3 shRNA (h) Lentiviral Particles: sc-96539-V as alternate gene silencing products.

For independent verification of UEV3 (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-96539A, sc-96539B and sc-96539C.

### 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

UEV3 siRNA (h) is recommended for the inhibition of UEV3 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 UEV3 gene expression knockdown using RT-PCR Primer: UEV3 (h)-PR: sc-96539-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.