# TRIM16L siRNA (h): sc-106638



The Power to Question

## **BACKGROUND**

The tripartite motif (TRIM) family of proteins are characterized by a conserved TRIM domain that includes a coiled-coil region, a B-box type zinc finger, one RING finger and three zinc-binding domains. TRIM16 (tripartite motif-containing 16), also known as EBBP (estrogen-responsive B box protein), is a 564 amino acid protein that belongs to the TRIM family and contains two B box-type zinc fingers and one B30.2/SPRY domain. TRIM16 is highly expressed in testis, ovary, small intestine, colon, placenta, heart, skeletal muscle and mammary gland. However, it is more highly expressed in fetus than in the corresponding adult tissues. TRIM16 is also expressed in basal keratinocytes, where it is thought to play a role in the regulation of keratinocyte differentiation. Overexpression of TRIM16 has been shown to increase histone acetylation in retinoid-resistant cancer cells and therefore may be a potential target for therapeutic drugs. TRIM16L, also designated TRIM70, is a related protein that contains one B30.2/SPRY domain.

## **REFERENCES**

- Liu, H.L., Golder-Novoselsky, E., Seto, M.H., Webster, L., McClary, J. and Zajchowski, D.A. 1998. The novel estrogen-responsive B-box protein (EBBP) gene is tamoxifen-regulated in cells expressing an estrogen receptor DNAbinding domain mutant. Mol. Endocrinol. 12: 1733-1748.
- Beer, H.D., Munding, C., Dubois, N., Mamie, C., Hohl, D. and Werner, S. 2002. The estrogen-responsive B box protein: a novel regulator of keratinocyte differentiation. J. Biol. Chem. 277: 20740-20749.
- Munding, C., Keller, M., Niklaus, G., Papin, S., Tschopp, J., Werner, S. and Beer, H.D. 2006. The estrogen-responsive B box protein: a novel enhancer of interleukin-1β secretion. Cell Death Differ. 13: 1938-1949.
- Cheung, B.B., Bell, J., Raif, A., Bohlken, A., Yan, J., Roediger, B., Poljak, A., Smith, S., Lee, M., Thomas, W.D., Kavallaris, M., Norris, M., Haber, M., Liu, H.L., Zajchowski, D. and Marshall, G.M. 2006. The estrogenresponsive B box protein is a novel regulator of the retinoid signal. J. Biol. Chem. 281: 18246-18256.
- Ozato, K., Shin, D.M., Chang, T.H. and Morse, H.C. 2008. TRIM family proteins and their emerging roles in innate immunity. Nat. Rev. Immunol. 8: 849-860.
- 6. Raif, A., Marshall, G.M., Bell, J.L., Koach, J., Tan, O., D'andreti, C., Thomas, W., Sekyere, E., Norris, M., Haber, M., Kavallaris, M. and Cheung, B.B. 2009. The estrogen-responsive B box protein (EBBP) restores retinoid sensitivity in retinoid-resistant cancer cells via effects on histone acetylation. Cancer Lett. 277: 82-90.

# **CHROMOSOMAL LOCATION**

Genetic locus: TRIM16L (human) mapping to 17p11.2.

# **PRESEARCH 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.

#### **RODUCT**

TRIM16L siRNA (h) is a pool of 2 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 TRIM16L shRNA Plasmid (h): sc-106638-SH and TRIM16L shRNA (h) Lentiviral Particles: sc-106638-V as alternate gene silencing products.

For independent verification of TRIM16L (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-106638A and sc-106638B.

## 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**

TRIM16L siRNA (h) is recommended for the inhibition of TRIM16L 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 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 TRIM16L gene expression knockdown using RT-PCR Primer: TRIM16L (h)-PR: sc-106638-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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