

## ETEA siRNA (r): sc-270647

### BACKGROUND

ETEA, also designated UBX domain-containing protein 8 (UBXD8), is a 445-amino acid protein associated with atopic dermatitis (AD), a chronic noncontagious relapsing inflammatory skin disease characterized by eczematous skin lesions and also referred to as eczematous dermatitis. Other atopic diseases such as hay fever, asthma and conjunctivitis often occur along with AD. ETEA shows higher expression in T cells and eosinophils of patients with AD than in T cells and eosinophils of unaffected individuals. T cells are influential in the regulation of the inflammatory process of this disease. The persistence of AD is attributed to dysregulated apoptosis in T cells, eosinophils, and keratinocytes. ETEA may be involved in the resistance to apoptosis in T cells and eosinophils of AD patients.

### REFERENCES

1. Leung, D.Y. 2000. Atopic dermatitis: new insights and opportunities for therapeutic intervention. *J. Allergy Clin. Immunol.* 105: 860-876.
2. Trautmann, A., Akdis, M., Kleemann, D., Altnauer, F., Simon, H.U., Graeve, T., Noll, M., Bröcker, E.B., Blaser, K. and Akdis, C.A. 2000. T cell-mediated Fas-induced keratinocyte apoptosis plays a key pathogenetic role in eczematous dermatitis. *J. Clin. Invest.* 106: 25-35.
3. Trautmann, A., Akdis, M., Klunker, S., Blaser, K. and Akdis, C.A. 2001. Role of apoptosis in atopic dermatitis. *Int. Arch. Allergy Immunol.* 124: 230-232.
4. Trautmann, A., Akdis, M., Blaser, K. and Akdis, C.A. 2001. Role of dysregulated apoptosis in atopic dermatitis. *Apoptosis* 5: 425-429.
5. Imai, Y., Nakada, A., Hashida, R., Sugita, Y., Tanaka, T., Tsujimoto, G., Matsumoto, K., Akasawa, A., Saito, H. and Oshida, T. 2002. Cloning and characterization of the highly expressed ETEA gene from blood cells of atopic dermatitis patients. *Biochem. Biophys. Res. Commun.* 297: 1282-1290.
6. García Angeles, J., Flores Sandoval, G., Orea Solano, M., Serrano, E. and Estrada Parra, S. 2003. Lymphocyte apoptosis in atopic dermatitis treated with transfer factor. *Rev. Alerg. Mex.* 50: 3-7.

### CHROMOSOMAL LOCATION

Genetic locus: Faf2 (rat) mapping to 17p14.

### PRODUCT

ETEA siRNA (r) 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 ETEA shRNA Plasmid (r): sc-270647-SH and ETEA shRNA (r) Lentiviral Particles: sc-270647-V as alternate gene silencing products.

For independent verification of ETEA (r) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-270647A, sc-270647B and sc-270647C.

### PROTOCOLS

See our web site at [www.scbt.com](http://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  $\mu$ 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

ETEA siRNA (r) is recommended for the inhibition of ETEA expression in rat 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.

### GENE EXPRESSION MONITORING

ETEA (F-7): sc-374098 is recommended as a control antibody for monitoring of ETEA 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-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 ETEA gene expression knockdown using RT-PCR Primer: ETEA (r)-PR: sc-270647-PR (20  $\mu$ l). 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.