

## EDA (T-21): sc-130746

### BACKGROUND

Affected males of X-linked anhidrotic ectodermal dysplasia show hypotrichosis, abnormal teeth and absent sweat glands. Some of the patients reported by Halperin and Curtis showed mental defect also, but this is not an invariable feature. Ectodysplasin A (EDA) is a trimeric type II membrane protein that co-localizes with cytoskeletal structures at the lateral and apical surfaces of cells. EDA is expressed in hair follicles and in the epidermis of adult skin. The sequence of the longest isoform includes an interrupted collagenous domain of 19 Gly-X-Y repeats and a motif conserved in the tumor necrosis factor (TNF)-related ligand family. EDA is a member of the TNF-related ligand family involved in the early epithelial-mesenchymal interaction that regulates ectodermal appendage formation. Similar to other members of collagenous membrane proteins and members of TNF-related ligands, EDA is a type II membrane protein which forms trimers.

### REFERENCES

- Halperin, S.L. and Curtis, G.M. 1942. Anhidrotic ectodermal dysplasia associated with mental deficiency. *Am. J. Ment. Defic.* 46: 459-463.
- Buckle, V.J., Edwards, J.H., Evans, E.P., Jonasson, J.A., Lyon, M.F., Peters, J. and Searle, A.G. 1985. Comparative maps of human and mouse X chromosomes. *Cytogenet. Cell Genet.* 40: 594-595.
- Kere, J., Srivastava, A.K., Montonen, O., Zonana, J., Thomas, N., Ferguson, B., Munoz, F., Morgan, D., Clarke, A., Baybayan, P., Chen, E.Y., Ezer, S., Saarialho-Kere, U., de La Chapelle, A. and Schlessinger, D. 1996. X-linked anhidrotic (hypohidrotic) ectodermal dysplasia is caused by mutation in a novel transmembrane protein. *Nat. Genet.* 13: 409-416.
- Ezer, S., Bayes, M., Elomaa, O., Schlessinger, D. and Kere, J. 1999. Ectodysplasin is a collagenous trimeric type II membrane protein with a tumor necrosis factor-like domain and co-localizes with cytoskeletal structures at lateral and apical surfaces of cells. *Hum. Mol. Genet.* 8: 2079-2086.
- Huang, C., Yang, Q., Ke, T., Wang, H., Wang, X., Shen, J., Tu, X., Tian, J., Liu, J.Y., Wang, Q.K. and Liu, M. 2006. A novel *de novo* frame-shift mutation of the EDA gene in a Chinese Han family with hypohidrotic ectodermal dysplasia. *J. Hum. Genet.* 51: 1133-1137.

### CHROMOSOMAL LOCATION

Genetic locus: EDA (human) mapping to Xq13.1.

### SOURCE

EDA (T-21) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of EDA of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

EDA (T-21) is recommended for detection of EDA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EDA siRNA (h): sc-39825, EDA shRNA Plasmid (h): sc-39825-SH and EDA shRNA (h) Lentiviral Particles: sc-39825-V.

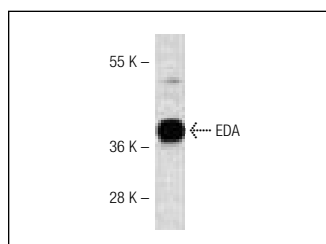
Molecular Weight of EDA: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

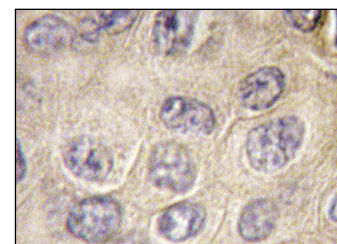
### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

### DATA



EDA (T-21): sc-130746. Western blot analysis of EDA expression in HeLa whole cell lysate.



EDA (T-21): sc-130746. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human hepatocarcinoma tissue showing cytoplasmic and membrane localization.

### RESEARCH USE

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

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Try **EDA (3E12): sc-517135**, our highly recommended monoclonal alternative to EDA (T-21).