SANTA CRUZ BIOTECHNOLOGY, INC.

EDA (3E12): sc-517135

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

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4. Ezer, S., et al. 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.
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6. Pummila, M., et al. 2007. Ectodysplasin has a dual role in ectodermal organogenesis: inhibition of Bmp activity and induction of Shh expression. Development 134: 117-125.
7. Bal, E., et al. 2007. Autosomal dominant anhidrotic ectodermal dysplasias at the EDARADD locus. Hum. Mutat. 28: 703-709.
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CHROMOSOMAL LOCATION

Genetic locus: EDA (human) mapping to Xq13.1; Eda (mouse) mapping to X C3.

SOURCE

EDA (3E12) is a mouse monoclonal antibody raised against amino acids 245-391 representing partial length EDA of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EDA (3E12) is recommended for detection of EDA of mouse, rat and 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

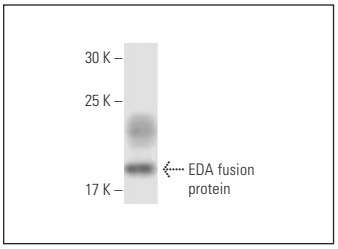
Suitable for use as control antibody for EDA siRNA (h): sc-39825, EDA siRNA (m): sc-39826, EDA shRNA Plasmid (h): sc-39825-SH, EDA shRNA Plasmid (m): sc-39826-SH, EDA shRNA (h) Lentiviral Particles: sc-39825-V and EDA shRNA (m) Lentiviral Particles: sc-39826-V.

Molecular Weight of EDA: 41 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto 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).

DATA



EDA (3E12): sc-517135. Western blot analysis of human recombinant EDA fusion protein.

STORAGE

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

RESEARCH 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.