

# EDARADD (S-12): sc-161543

## BACKGROUND

EDARADD (EDAR-associated death domain), also known as ectodysplasin-A receptor-associated adapter protein, ED3 or EDA3, is a 215 amino acid cytoplasmic adapter protein that links the death domain of EDAR (ectodysplasin A receptor), a protein required for development of ectodermal derivatives, to signaling pathways. Existing as two alternatively spliced isoforms, EDARADD is able to associate with itself, TRAF1, 2 and 3 and mediates NF $\kappa$ B activation. EDARADD is expressed in epithelial cells during the formation of hair follicles and teeth, as well as in placenta, pancreas and fetal skin. Defects in the gene encoding EDARADD are the cause of a genetic disorder known as ectodermal dysplasia anhidrotic (EDA), which is characterized by deficits in the development of teeth, eccrine sweat glands and hair.

## REFERENCES

- Munoz, F., Lestringant, G., Sybert, V., Frydman, M., Alswaini, A., Frossard, P.M., Jorgenson, R. and Zonana, J. 1997. Definitive evidence for an autosomal recessive form of hypohidrotic ectodermal dysplasia clinically indistinguishable from the more common X-linked disorder. *Am. J. Hum. Genet.* 61: 94-100.
- Aswegan, A.L., Josephson, K.D., Mowbray, R., Pauli, R.M., Spritz, R.A. and Williams, M.S. 1997. Autosomal dominant hypohidrotic ectodermal dysplasia in a large family. *Am. J. Med. Genet.* 72: 462-467.
- Monreal, A.W., Ferguson, B.M., Headon, D.J., Street, S.L., Overbeek, P.A. and Zonana, J. 1999. Mutations in the human homologue of mouse dl cause autosomal recessive and dominant hypohidrotic ectodermal dysplasia. *Nat. Genet.* 22: 366-369.
- Kumar, A., Eby, M.T., Sinha, S., Jasmin, A. and Chaudhary, P.M. 2001. The ectodermal dysplasia receptor activates the nuclear factor- $\kappa$ B, JNK, and cell death pathways and binds to ectodysplasin-A. *J. Biol. Chem.* 276: 2668-2677.

## CHROMOSOMAL LOCATION

Genetic locus: EDARADD (human) mapping to 1q42.3; Edaradd (mouse) mapping to 13 A1.

## SOURCE

EDARADD (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EDARADD of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161543 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

EDARADD (S-12) is recommended for detection of EDARADD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EDARADD (S-12) is also recommended for detection of EDARADD in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EDARADD siRNA (h): sc-88807, EDARADD siRNA (m): sc-143290, EDARADD shRNA Plasmid (h): sc-88807-SH, EDARADD shRNA Plasmid (m): sc-143290-SH, EDARADD shRNA (h) Lentiviral Particles: sc-88807-V and EDARADD shRNA (m) Lentiviral Particles: sc-143290-V.

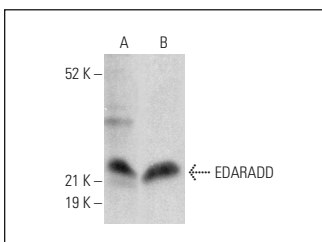
Molecular Weight of EDARADD: 25 kDa.

Positive Controls: mouse small intestine extract: sc-364252 or human pancreas extract: sc-363770.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



EDARADD (S-12): sc-161543. Western blot analysis of EDARADD expression in human pancreas (A) and mouse small intestine (B) tissue extracts.

## 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) or our catalog for detailed protocols and support products.