

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human EDA-A2/Ectodysplasin A2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant human (rh) EDA-A1 is observed, approximately 10% cross-reactivity with recombinant mouse ED                            |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 174813                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human EDA-A2/Ectodysplasin A2<br>Ala179-Ser389<br>Accession # NP_001005609                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

EDA-A2, a product of the EDA gene (also called Tabby), is a type II transmembrane protein that is a member of the TNF Superfamily (TNFSF). Human EDA-A2 is a 389 amino acid (aa) protein with a predicted N-terminal 39 aa cytoplasmic domain, a 22 aa transmembrane domain and a C-terminal 328 aa extracellular domain. The extracellular domains of human and mouse EDA-A2 share approximately 94% identity. Within the TNFSF, EDA-A2 shares the highest homology with EDA-A1, the other product of the EDA gene. EDA-A2 and EDA-A1 are splice variants of EDA which differ by only two amino acids. EDA-A1 contains two additional amino acids, Glu308 and Val309. Despite this minor difference, the EDA isoforms display strong receptor specificity. EDA-A1 only binds EDAR, a member of the TNF Receptor Superfamily (TNFRSF), whereas EDA-A2 binds to XEDAR, an X-linked TNFRSF family member with high homology to EDAR. Mutations in EDA-A1, EDA-A2, EDAR and XEDAR have been associated with hypohidrotic ectodermal dysplasia (HED). HED is characterized by abnormalities in hair, teeth and eccrine sweat gland morphogenesis. HED was initially found to associate with two gene loci, tabby and downless. Tabby was later identified as the gene for EDA and downless as the autosomal EDAR gene.

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.