

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human EDA2R/TNFRSF27/XEDAR in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human EDA2R/TNFRSF27/XEDAR Met1-Glu136 Accession # Q9HAV5
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

## 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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human EDA2R/TNFRSF27/XEDAR Fc Chimera (Catalog # <a href="#">1093-XD</a> )
<b>Blockade of Receptor-ligand Interaction</b>	In a functional ELISA, 1-4 µg/mL of this antibody will block 50% of the binding of 5 ng/mL of Recombinant Human EDA-A2 (Catalog # <a href="#">1093-XD</a> ) to immobilized Recombinant Human EDA2R/TNFRSF27/XEDAR Fc Chimera (Catalog # <a href="#">1093-XD</a> ) coated at 1 µg/mL (100 µL/well). At 10 µg/mL, this antibody will block >90% of the binding.	

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

X-linked ectodysplasin receptor (XEDAR) is a type III transmembrane that lacks an N-terminal signal peptide. It is an X-linked member of the TNF Receptor Superfamily (TNFRSF). Human XEDAR is a 297 amino acid (aa) protein with a 136 aa extracellular domain, a 21 aa transmembrane domain, and a 140 aa cytoplasmic domain. Within the TNFRSF, XEDAR shares the highest homologies with EDAR and TNFRSF19/TROY. EDA-A2 is the XEDAR ligand. XEDAR expression is principally found in embryonic hair follicles. XEDAR, EDAR, EDA-A1 and EDA-A2 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. EDA has two splice variants, EDA-A1 and EDA-A2 which differ by only two amino acids. Despite this minor difference, the EDA isoforms display strong receptor specificity. EDA-A1 only binds EDAR, whereas EDA-A2 only binds to XEDAR. Mutations in EDA, EDAR and XEDAR have been associated with HED.

## References:

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