

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse OX40/TNFRSF4 in direct ELISAs and Western blots. In these formats, less than 2% cross-reactivity with recombinant mouse (rm) EDAR, rm4-BB, rmCD27, rmdR3, rmGITR, rmNGF R, rmCD30, rmCD40, rmFas, rmOPG, rmRANK, rmTNF RI, and rmT                            |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse OX40/TNFRSF4 Val20-Pro211<br>Accession # P47741                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 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.

|                         |                                                                        |
|-------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>     | Optimal dilution of this antibody should be experimentally determined. |
| <b>Agonist Activity</b> | 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

OX40, also known as CD134, was originally identified as an activated rat CD4<sup>+</sup> T cell-surface antigen that is recognized by the monoclonal antibody MRC OX40. It is a member of the tumor necrosis factor receptor superfamily (TNFRSF) and has been designated TNFRSF4. Mouse OX40 cDNA encodes a 256 amino acid (aa) residues type I transmembrane precursor protein with a putative 19 aa signal peptide, a 192 aa extracellular domain containing 4 TNFR-cysteine rich repeats, a 25 aa transmembrane domain and a 36 aa cytoplasmic region. A naturally occurring soluble OX40 has also been identified in human serum. Mouse OX40 shares approximately 63% and 90% aa sequence identity with its human and rat counterparts, respectively. OX40 is a T cell activation antigen that is expressed primarily on activated CD4<sup>+</sup> T cells, but is also expressed on activated human and mouse CD8<sup>+</sup> T cells. The ligand of OX40 is OX40 ligand (OX40L), also known as gp34, a type II transmembrane glycoprotein belonging to the TNF superfamily. OX40L is expressed on activated B cells, T cells, dendritic cells and endothelial cells. Ligation of OX40 on T cells by OX40L or an agonistic antibody can promote clonal expansion, long-term T cell survival, and enhance memory T cell development. *In vivo*, blockade of OX40/OX40L interaction has been useful for treating autoimmune disease and graft-versus-host disease in animal models. Activation of OX40 has also been utilized to enhance the potency of vaccines and augment anti-tumor immunity (1-9).

## PRODUCT SPECIFIC NOTICES

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