Mouse OX40/TNFRSF4 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1256

DESCRIPTION

Species Reactivity	Mouse
Specificity	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 rmTNF RII is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse OX40/TNFRSF4 Val20-Pro211 Accession # P47741
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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
Western Blot	0.1 µg/mL	Recombinant Mouse OX40/TNFRSF4 Fc Chimera (Catalog # 1256-OX)
Agonist Activity	Measured by its ability to co-stimulate IL-2 secretion by mouse T cells in the presence of anti-CD3 [Saoulli, K. *et al.* (1998) J. Exp. Med. **187(11)**:1849; Cannons, J. *et al.* (2001) J. Immunol. **167**:1313.]. The ED_{50} for this effect is typically 0.4 - 1.2 µg/mL.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

OX40, also known as CD134, was originally identified as an activated rat $CD4^+$ 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 $CD4^+$ T cells, but is also expressed on activated human and mouse $CD8^+$ 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).

References:

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