Recombinant Mouse Tnfrsf4 Protein, His tagged, APC Labeled

Cat. No. Tnfrsf4-308M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse OX40 (Val20-Pro211) with C-terminus His-tag is expressed in CHO cell and conjugated to APC.
Species	Mouse
Source	CHO
ProteinLength	APC
Conjugation/Label	20-211 aa
Description	OX40, also known as CD134 or TNFRSF4, is a co-stimulatory receptor that plays a key role in regulating T cell activation, survival, and memory formation. OX40 is not expressed on resting naïve T cells but is rapidly upregulated on CD4+ and CD8+ T cells following antigen recognition and co-stimulation. It is also expressed on regulatory T cells and, in some contexts, on innate immune cells. Through its signaling, OX40 enhances the magnitude and durability of adaptive immune responses. Structurally, OX40 is a type I transmembrane glycoprotein and a member of the tumor necrosis factor receptor (TNFR) superfamily. Its extracellular region contains multiple cysteine-rich domains characteristic of TNFR family members, which mediate ligand binding. OX40 has a single transmembrane domain and a cytoplasmic tail that lacks intrinsic enzymatic activity but recruits TNF receptor–associated factors (TRAFs) upon activation. These adaptor proteins initiate downstream signaling pathways, including NF-κB, PI3K–AKT, and MAPK pathways,

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	which promote T cell proliferation, survival, and cytokine production. The primary ligand for OX40 is OX40 ligand (OX40L, also known as CD252 or TNFSF4), which is expressed on activated antigen-presenting cells such as dendritic cells, B cells, and macrophages, as well as on endothelial cells in inflamed tissues. Engagement of OX40 by OX40L delivers a potent co-stimulatory signal that supports clonal expansion of effector T cells, enhances the generation of long-lived memory T cells, and can modulate the suppressive function of regulatory T cells. OX40 signaling is implicated in a range of disease processes. In autoimmune and inflammatory diseases, excessive or prolonged OX40–OX40L interactions can drive pathogenic T cell responses, contributing to chronic inflammation and tissue damage. In allergic disease, OX40 promotes Th2 differentiation and cytokine production, supporting allergic inflammation. Conversely, in cancer, insufficient OX40 signaling may limit effective anti-tumor immunity, as robust T cell activation and persistence are required for tumor control. Therapeutically, OX40 is an active target of immunomodulatory strategies. Agonistic antibodies targeting OX40 are being developed to enhance T cell responses in cancer immunotherapy, often in combination with immune checkpoint inhibitors to improve efficacy. In contrast, blockade of the OX40–OX40L pathway is being explored as a potential treatment for autoimmune and inflammatory diseases. These dual approaches underscore OX40's central role in balancing immune activation and regulation in health and disease.
Form	Liquid, 1×PBS buffer, pH7.4, 0.09% NaN3 with a carrier protein
Molecular Mass	The protein has a predicted molecular weight of 22.9 kDa. Under DTT-reducing conditions, it migrates at approximately 40 kDa on SDS-PAGE prior to conjugation.
Applications	Flow Cytometry
Storage	Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2–8 centigrade for up to six months.

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Concentration	25 μg size is bottled at 0.1 mg/mL concentration. 100 μg size is bottled at lot specific concentration.

GENE INFORMATION

Gene Name	Tnfrsf4 tumor necrosis factor receptor superfamily, member 4 [Mus musculus (house mouse)]
Official Symbol	Tnfrsf4
Synonyms	TNFRSF4; tumor necrosis factor receptor superfamily, member 4; tumor necrosis factor receptor superfamily member 4; OX40 antigen; OX40L receptor; tax-transcriptionally activated glycoprotein 1; Ox40; ACT35; CD134; Ly-70; Txgp1; TXGP1L;
Gene ID	22163
mRNA Refseq	NM_011659
Protein Refseq	NP_035789
UniProt ID	P47741

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