

#15122 Store at -20°C

## OX40 (D4N3K) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	45	Rabbit IgG	#P43489	7293

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	OX40 (D4N3K) Rabbit mAb recognizes endogenous levels of total OX40 protein. This antibody binds the extracellular domain of human OX40 protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln156 of human OX40 protein.	
<b>Background</b>	OX40 (TNFRSF4, CD134) is a member of the tumor necrosis factor (TNF) receptor superfamily that regulates T cell activity and immune responses. The OX40 protein contains four cysteine rich domains, a transmembrane domain, and a cytoplasmic tail containing a QEE motif (1,2). OX40 is primarily expressed on activated CD4+ and CD8+ T-cells, while the OX40 ligand (OX40L, TNFSF4, CD252) is predominantly expressed on activated antigen presenting cells (3-7). The engagement of OX40 with OX40L leads to the recruitment of TNF receptor-associated factors (TRAFs) and results in the formation of a TCR-independent signaling complex. One component of this complex, PKCθ, activates the NF-κB pathway (2,8). OX40 signaling through Akt can also enhance TCR signaling directly (9). Research studies indicate that the OX40L-OX40 pathway is associated with inflammation and autoimmune diseases (10). Additional research studies show that OX40 agonists augment anti-tumor immunity in several cancer types (11,12).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Croft, M. (2010) <i>Annu Rev Immunol</i> 28, 57-78.</li> <li>2. So, T. and Croft, M. (2012) <i>Front Immunol</i> 3, 133.</li> <li>3. Paterson, D.J. et al. (1987) <i>Mol Immunol</i> 24, 1281-90.</li> <li>4. Mallett, S. et al. (1990) <i>EMBO J</i> 9, 1063-8.</li> <li>5. Dürkop, H. et al. (1995) <i>Br J Haematol</i> 91, 927-31.</li> <li>6. Godfrey, W.R. et al. (1994) <i>J Exp Med</i> 180, 757-62.</li> <li>7. Al-Shamkhani, A. et al. (1997) <i>J Biol Chem</i> 272, 5275-82.</li> <li>8. So, T. et al. (2011) <i>Proc Natl Acad Sci U S A</i> 108, 2903-8.</li> <li>9. So, T. and Croft, M. (2013) <i>Front Immunol</i> 4, 139.</li> <li>10. Gough, M.J. and Weinberg, A.D. (2009) <i>Adv Exp Med Biol</i> 647, 94-107.</li> <li>11. Weinberg, A.D. et al. (2011) <i>Immunol Rev</i> 244, 218-31.</li> <li>12. Linch, S.N. et al. (2015) <i>Front Oncol</i> 5, 34.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected

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