

## ICOS (D1K2T<sup>™</sup>) Rabbit mAb



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## For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> IHC-Bond, IHC-P	<b>Reactivity:</b> H Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 25-40	<b>Source/Isotype:</b> Rabbit IgG	UniProt ID: #Q9Y6W8	Entrez-Gene Id: 29851
Product Usage Information		<b>Application</b> IHC Leica Bond Immunohistochemist	ry (Paraffin)	<b>Dilution</b> 1:100 - 1:400 1:100 - 1:400		
Storage		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.  For a carrier free (BSA and azide free) version of this product see product #39740.				
Specificity/Sensitivity		ICOS (D1K2T™) Rabbit mAb recognizes endogenous levels of total ICOS protein.				
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ICOS protein.				
Background		ICOS (Inducible Co-Stimulator, CD278) is a member of the CD28 family that regulates T cell activity and immune responses (1). The ICOS protein contains an extracellular IgV-like domain, a transmembrane domain, and an intracellular domain with a YMFM motif (1-2). ICOS is primarily expressed on activated CD4 <sup>+</sup> and CD8 <sup>+</sup> T cells (1). Upon binding to its ligand, ICOS potentiates the T cell response to antigen through activation of the PI3K signaling pathway (3). In addition to enhancing T cell activation and proliferation, ICOS plays an important role in the regulation of T follicular helper cells (4). Research studies suggest that ICOS is a potential therapeutic target, and could serve as a prognostic biomarker for neoplastic therapy involving CTLA-4 blockade (5-7).				
Background References		1. Hutloff, A. et al. (1999) <i>Nature</i> 397, 263-6. 2. Coyle, A.J. et al. (2000) <i>Immunity</i> 13, 95-105. 3. Fos, C. et al. (2008) <i>J Immunol</i> 181, 1969-77. 4. Hutloff, A. (2015) <i>Oncotarget</i> 6, 21785-6. 5. Kyi, C. and Postow, M.A. (2014) <i>FEBS Lett</i> 588, 368-76. 6. Fan, X. et al. (2014) <i>J Exp Med</i> 211, 715-25. 7. Ng Tang, D. et al. (2013) <i>Cancer Immunol Res</i> 1, 229-34.				

Species reactivity is determined by testing in at least one approved application (e.g., western blot). **Species Reactivity** 

**Applications Key** IHC-Bond: IHC Leica Bond IHC-P: Immunohistochemistry (Paraffin)

**Cross-Reactivity Key** H: Human Mk: Monkey

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