Revision 9

#89601 Store at -20C

ICOS (D1K2T™) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IHC-Bond, IHC-P	H	Endogenous	25-40	Rabbit IgG	#Q9Y6W8	29851

Product Usage Information

Application	Dilution
IHC Leica Bond	1:100 - 1:400
Immunohistochemistry (Paraffin)	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+ and CD8+ 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) *Nature* 397, 263-6.
2. Coyle, A.J. et al. (2000) *Immunity* 13, 95-105.
3. Fos, C. et al. (2008) *J Immunol* 181, 1969-77.
4. Hutloff, A. (2015) *Oncotarget* 6, 21785-6.
5. Kyi, C. and Postow, M.A. (2014) *FEBS Lett* 588, 368-76.
6. Fan, X. et al. (2014) *J Exp Med* 211, 715-25.
7. Ng Tang, D. et al. (2013) *Cancer Immunol Res* 1, 229-34.

Species Reactivity

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

Applications Key

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

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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