

TECHNICAL DATA SHEET

# Purified Anti-Human CD27 (O323)

Catalog Number: 70-0279

## PRODUCT INFORMATION

**Contents:** Purified Anti-Human CD27 (O323)

**Isotype:** Mouse IgG1, kappa

**Concentration:** 0.5 mg/mL

**Clone:** O323

**Reactivity:** Human

**Formulation:** 10 mM NaH<sub>2</sub>PO<sub>4</sub>, 150 mM NaCl, 0.09% NaN<sub>3</sub>, pH7.2

## DESCRIPTION

The O323 antibody reacts with human CD27 (TNFRSF7), a cell surface homodimer of 55 kDa subunits, which provides co-stimulatory signaling in support of the T cell (TCR) and B cell (BCR) receptors. By comparison with CD28, whose TCR co-stimulatory signal can trigger cell proliferation, CD27 signaling appears to promote cell survival and differentiation to effector / memory stages. Also in contrast with CD28, the CD27 receptor may be shed following interaction with its ligand CD70, which is typically expressed on activated dendritic cells, T cells and B cells. With respect to B cells, CD27 is considered to be a phenotypic marker for memory B cells. CD27 has been included within a group of phenotypic markers for identifying human B regulatory cells (Bregs), a cell type proposed to regulate CD4+ T cell proliferation and Foxp3 / CTLA-4 expression in Treg cells. The O323 antibody may be used for analysis of CD27 expression on peripheral T cells, and is frequently used in combination with antibodies for IgD and IgM to distinguish naïve vs. memory B cell populations. For identification of Breg cells, this antibody has been used in combination with antibodies for CD25, CD27, CD1d, IL-10 and TGF-beta (Kessel et al. 2012. *Autoimm. Rev.* 11(9): 670-677). The antibody is also reported for cross-reactivity with Baboon, Cynomolgus and Rhesus CD27.

## PREPARATION & STORAGE

This monoclonal antibody preparation was purified from tissue culture supernatant via affinity chromatography. For In Vivo Ready™ (IVR) products, each preparation is also evaluated for endotoxin levels using the LAL assay. It is recommended to store the product undiluted at 4°C. Do not freeze.

## APPLICATION NOTES

This purified format is guaranteed to be >90% pure as determined by SDS-PAGE analysis. Citations are provided as a convenience to you - please consult Materials and Methods sections for additional details about the use of any product in these publications.

## REFERENCES

Kroenke MA, Eto D, Locci M, Cho M, Davidson T, Haddad EK, and Crotty S. 2012. *J. Immunol.* 188: 3734-3744. (flow cytometry)Ruffell B, Au A, Rugo HS, Esserman LJ, Hwang ES, and Coussens LM. 2012. *Proc. Natl. Acad. Sci.* 109: 2796-2801. (flow cytometry)Strowig T, Tongvaux A, Rathinam C, Takizawa H, Borsotti C, Philbrick W, Eynon EE, Manz MG, and Flavell RA. 2011. *Proc. Natl. Acad. Sci.* 108: 13218-13223. (flow cytometry)So NSY, Ostrowski MA and Gray-Owen SD. 2012. *J. Immunol.* 188: 4008-4022. (flow cytometry)Klatt NR, Vinton CL, Lynch RM, Canary LA, Ho J, Darrah PA, Estes JD, Seder RA, Moir SL, and Brenchley JM. 2011. *Blood.* 118: 5803-5812. (Cell sorting - Rhesus)Ali Z, Yan L, Plagman N, Reichenberg A, Hintz M, Jomaa H, Villinger F, and Chen ZW. 2009. *J. Immunol.* 183: 5407-5417. (flow cytometry - Rhesus)Ali Z, Shao L, Halliday L, Reichenberg A, Hintz M, Jomaa H, and Chen ZW. 2007. *J. Immunol.* 8287-8296. (flow cytometry - Cynomolgus)

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.

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