

Anti-Human/Mouse beta-Catenin Alexa Fluor® 488

Catalog Number: 53-2567 RUO: For Research Use Only. Not for use in diagnostic procedures.



Use By: Refer to vial

Description

Host/Isotype: Mouse IgG1, kappa

The 15B8 monoclonal antibody reacts with human and mouse beta-catenin, one member of a family of catenins, which are intracellular proteins that interact with cadherins to mediate cellular adhesion. More specifically, betacatenin binds to the cytoplasmic tail of E-cadherin. In addition, this molecule is a component of the canonical Wnt signaling pathway. In the absence of Wnt binding its receptor, beta-catenin is phosphorylated and resides in the cytoplasm where it is eventually targeted for degradation by ubiquitination. Upon Wnt binding, beta-catenin becomes dephosphorylated, translocates to the nucleus, and modulates gene expression in partnership with the transcription factors T cell factor (TCF) and lymphocyte enhancer binding factor (LEF). Expression of beta-catenin is found in a wide variety of non-immune and immune tissues, including thymocytes and T and B lymphocytes. The Wnt & beta-catenin signaling pathway has been demonstrated to play a crucial role in the development of T, B, and hematopoietic stem cells.

Applications Reported

This 15B8 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested

This 15B8 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of Jurkat cell line using the Foxp3 Staining Buffer Set (cat. 00-5523). This can be used at 5 μ L (0.25 μ g) per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

References

Xu M, Sharma A, Hossain MZ, Wiest DL, Sen JM. Sustained expression of pre-TCR induced beta-catenin in postbeta-selection thymocytes blocks T cell development. J Immunol. 2009 Jan 15;182(2):759-65.

Staal FJ, Sen JM. The canonical Wnt signaling pathway plays an important role in lymphopoiesis and hematopoiesis. Eur J Immunol. 2008 Jul;38(7):1788-94. Review.

Xu, Y, Banerjee D, Huelsken J, Birchmeier W, and Sen JM. Deletion of beta-catenin impairs T cell development. Nat.



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Related Products

00-5523 Foxp3 / Transcription Factor Staining Buffer Set 53-4714 Mouse IgG1 K Isotype Control Alexa Fluor® 488 (P3.6.2.8.1)

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