TECHNICAL DATA SHEET

In Vivo Ready™ Anti-Mouse CD3e (145-2C11)

Catalog Number: 40-0031

PRODUCT INFORMATION

Contents: In Vivo Ready™ Anti-Mouse CD3e (145-2C11)

Isotype: Armenian Hamster IgG

Concentration: 2 mg/mL

Clone: 145-2C11

Reactivity: Mouse

Formulation: 10 mM NaH2PO4, 150 mM NaCl, pH7.2

Endotoxin Level: Less than or equal to 0.01 EU/ug, as determined by the LaL assay

DESCRIPTION

The 145-2C11 antibody is specific for mouse CD3e, also known as CD3 epsilon, a 20 kDa subunit of the T cell receptor complex, along with CD3 gamma and CD3 delta. These integral membrane protein chains assemble with additional chains of the T cell receptor (TCR), as well as CD3 zeta chain, to form the T cell receptor – CD3 complex. Together with co-receptors CD4 or CD8, the complex serves to recognize antigens bound to MHC molecules on antigen-presenting cells. Such interactions promote T cell receptor signaling (T cell activation) and can result in a number of cellular responses including proliferation, differentiation, production of cytokines or activation-induced cell death. CD3 is differentially expressed during thymocyte-to-T cell development and on all mature T cells.The 145-2C11 antibody is a widely used phenotypic marker for mouse T cells. In addition, binding of 145-2C11 antibody to CD3e can induce cell activation. A recent publication of the crystal structure of a murine CD3e-mitogenic antibody complex provides further insight into the action of commonly used agonist antibodies (Fernandes, R.A. et al. 2012. J. Biol. Chem. 287: 13324-13335).

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

Staehli R, Ludigs K, Heinz LX, Sequin-Estevez Q, Ferero I, Braun M, Schroder K, Rebsamen M, Tardivel A, Mattmann C, MacDonald HR, Romero P, Reith W, Guarda G, and Tschopp J. 2012. J. Immunol. 188: 3820-3828. (in vitro activation)Todo T, Wu G, Chai NN, He Y, Martins G, Gupta A, Fair J, Liu NY, Jordan S, and Klein A. 2012. Int. Immunol. 10:1093. (in vivo assay)Mira E, Leon B, Barber DF, Jimenez-Baranda S, Goya I, Almonacid L, Marquez G, Zaballos A, Martinez C, Stein JV, Ardavin C and Manes S. 2012. J. Immunol. (in vitro activation, immunohistochemistry – frozen tissue)Becker-Herman A, Meyer-Bahlburg A, Schwartz MA, Jackson SW, Hudkins KL, Liu C, Sather BD, Khim S, Liggitt D, Song W, Silverman GJ, Alpers CE and Rawlings DJ. 2011. J. Exp. Med. 208:2033-2042. (immunofluorescence microscopy – OCT embedded frozen tissue)Salmond RJ, Filby A, Pirinen N, Magee AI, and Zamoyska R. 2010. Blood. 117: 108-117. (immunoprecipitation)Tilley SL, Jaradat M, Stapleton C, Dixon D, Hua X, Erikson CJ,. McCaskill JG, Chason KD, Liao G, Jania L, Koller BH, and Jetten AM. 2007. J. Immunol. 178: 3208-18. (immunohistochemistry – frozen tissue)Isakov N, Wange RL, Burgess WH, Watts JD, Aebersold R, and Samelson LE. 1995. J. Exp. Med. 181:375-380. (in vitro activation, immunoprecipitation)Salvadori S, Gansbacher B, Pizzimenti AM, and Zier KS. 1994. J. Immunol. 153: 5176 - 5182. (western blotting)Leo O, Foo M, Sachs D, Samuelson L, and Bluestone J. 1987. Proc. Natl. Acad. Sci. USA. 84: 1374 (Origination of clone 145-2C11, in vitro activation, in vitro blocking, immunoprecipitation)

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.