TONBO biosciences

Equivalent Performance, Exceptional Value

TECHNICAL DATA SHEET

Purified Anti-Human CD3 (Hit3a)

Catalog Number: 70-0039

PRODUCT INFORMATION

Contents:	Purified Anti-Human CD3 (Hit3a)
Isotype:	Mouse IgG2a, kappa
Concentration:	0.5 mg/mL
Clone:	Hit3a
Reactivity:	Human
Use By:	12 months from date of receipt
Storage Conditions:	2-8°C
Formulation:	10 mM NaH2PO4, 150 mM NaCl, 0.09% NaN3, pH7.2

DESCRIPTION

The Hit3a antibody is specific for human 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. These interactions promote T cell receptor signaling (T cell activation), inducing cell 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 Hit3a antibody is a widely used phenotypic marker for human T cells. In addition, binding/cross-linking of Hit3a antibody to CD3e can induce cell activation. The antibody has also been demonstrated to be cross-reactive with Chimpanzee CD3.

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. Tonbo Biosciences tests all of our antibodies by flow cytometry. Citations may be provided as a resource for additional applications that have not been validated by Tonbo Biosciences - please consult Materials and Methods sections for additional details about the use of any product in these publications.

REFERENCES

Lesourne R, Zvezdova E, Song K-D, El-Khoury D, Uehara S, Barr VA, Samelson LE and Love PE. 2012. J. Immunol. 189: 1154-1161. (in vitro activation) Knyazhitsky M, Moas E, Shaginov E, Luria A, and Braiman A. 2012. J. Biol. Chem. 287: 19725-19735. (in vitro activation)Ge Shuwang, Hertel B, Emden SH, Beneke J, Menne J, Haller H, and von Vietinghoff S. 2012. Nephrol. Dial. Transplant. 27: 2768-2772. (Immunofluorescence microscopy)Soto PC, Stein LL, Hurtado-Ziola N, Hedrick SM, and Varki A. 2010. J. Immunol. 184: 4185-4195. (Flow cytometry – Chimpanzee)Westermann J, Bode U, Sahle A, Speck U, Karin N, Bell EB, Kalies K, and Gebert A. 2005. J. Immunol. 174: 2517-2524. (Immunohistochemistry – frozen tissue)Mukouyama H, Janzen NK, Hernandez JM, Lam JS, Caliliw R, Wang AY, Figlin RA, Belldegrun AS, and Zeng G. 2004. Clin. Cancer Res. 10: 1421-1429. (in vitro blocking)