EXBIO Antibodies

PRODUCT DATA SHEET

10-568-C100

Monoclonal Antibody to CD3 zeta (CD247) Azide Free (0.1 mg)

Clone:	H146-968
Isotype:	Hamster IgG
Specificity:	The Armenian hamster antibody H146-968 reacts with CD3 zeta chain (CD247), which is a component of TCR/CD3 complex expressed on T cells.
Immunogen:	Synthetic peptide corresponding to amino acids 151-164 of mouse CD3 zeta.
Species Reactivity:	Human, Mouse
Application:	Flow Cytometry Immunoprecipitation Western Blotting Recommended dilution: 1 µg/ml Immunocytochemistry Recommended dilution: 4 µg/ml
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified from cell culture supernatant by protein-A affinity chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Azide free phosphate buffered saline (PBS), approx. pH 7.4; 0.2 µm filter sterilized.
Storage / Stability:	Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta (CD247). These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 42 Vestec u Prahy | Czech Republic
Tel: +420 261 090 664 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz

References:

*Huang Y, Wange RL: T cell receptor signaling: beyond complex complexes. J Biol Chem. 2004 Jul 9;279(28):28827-30.
*Kuhns MS, Davis MM, Garcia KC: Deconstructing the form and function of the TCR/CD3 complex. Immunity. 2006 Feb;24(2):133-9.
*Alarcón B, Swamy M, van Santen HM, Schamel WW: T-cell antigen-receptor stoichiometry: pre-clustering for sensitivity. EMBO Rep. 2006 May;7(5):490-5.
*Rozdzial MM, Kubo RT, Turner SL, Finkel TH: Developmental regulation of the TCR zeta-chain. Differential expression and tyrosine phosphorylation of the TCR zeta-chain in resting immature and mature T lymphocytes. J Immunol. 1994 Aug 15;153(4):1563-80.
*Kishimoto H, Kubo RT, Yorifuji H, Nakayama T, Asano Y, Tada T: Physical dissociation of the TCR-CD3 complex accompanies receptor ligation. J Exp Med. 1995 Dec 1;182(6):1997-2006.
*Bäckström BT, Hausmann BT, Palmer E: Signaling efficiency of the T cell receptor controlled by a single amino acid in the beta chain constant region. J Exp Med. 1997 Dec 1;186(11):1933-8.
*Kosugi A, Saitoh S, Noda S, Yasuda K, Hayashi F, Ogata M, Hamaoka T: Translocation of tyrosine-phosphorylated TCRzeta chain to glycolipid-enriched membrane domains upon T cell activation. Int Immunol. 1999 Sep;11(9):1395-401.
*Iida T, Ohno H, Nakaseko C, Sakuma M, Takeda-Ezaki M, Arase H, Kominami E, Fujisawa T, Saito T: Regulation of cell surface expression of CTLA-4 by secretion of CTLA-4-containing lysosomes upon activation of CD4+ T cells. J Immunol. 2000 Nov 1;165(9):5062-8.
*Kikuchi-Maki A, Catina TL, Campbell KS: Cutting edge: KIR2DL4 transduces signals into human NK cells through association with the Fc receptor gamma protein. J Immunol. 2005 Apr 1;174(7):3859-63.
*Doyon L, Hanna Z, Jolicoeur P, Sékaly RP: Early expression of human CD4 delays thymic differentiation in transgenic mice. Res Immunol. 1994 Jan;145(1):5-16.
*Scumpia PO, Delano MJ, Kelly-Scumpia KM, Weinstein JS, Wynn JL, Winfield RD, Xia C, Chung CS, Ayala A, Atkinson MA, Reeves WH, Clare-Salzler MJ, Moldawer LL: Treatment with GITR agonistic antibody corrects adaptive immune dysfunction in sepsis. Blood. 2007 Nov 15;110(10):3673-81.

For laboratory research only, not for drug, diagnostic or other use.