Data Sheet (Cat.No.TMAY-01413)

TargetMol

Anti-CD3D Antibody (2Z593)

Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2Z593
Purification:	Protein A

Applications

Verified Activity:	Anti-CD3D mouse monoclonal antibody at 1:500 dilution. -Lane A: Jurkat Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. -Predicted band size:19 kDa. -Observed band size:24 kDa
Application:	ELISA,ELISA(Det),WB
Recommended	WB: 1:500-1:2000; ELISA: 1:1000-1:2000; ELISA(Det): 1:1000-1:10000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human CD3D protein (TMPY-01196)
Antigen Species:	Human
Synonyms:	CD3 δ;T3D;CD3 delta;CD3-δ;CD3d molecule, δ (CD3-TCR complex);CD3d molecule, delta (CD3-TCR complex);CD3-DELTA;IMD19

Research Background

T-cell surface glycoprotein CD3 delta chain, also known as CD3D, is a single-pass type I membrane protein. CD3D, together with CD3-gamma, CD3-epsilon and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. The majority of T cell receptor (TCR) complexes in mice and humans consist of a heterodimer of polymorphic TCR alpha and beta chains along with invariant CD3 gamma, delta, epsilon, and zeta chains. T cell receptor-CD3 complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. This complex is critical for T-cell development and function, and represents one of the most complex transmembrane receptors. The T cell receptor-CD3 complex is unique in having ten cytoplasmic immunoreceptor tyrosine-based activation motifs (ITAMs). CD3D contains 1 ITAM domain and has been shown to interact with CD8A. In the mouse, knockout of CD3delta allows some degree of T lymphocyte differentiation since mature CD4 and CD8 as well as TCRgammadelta T lymphocytes are observed in the periphery. In

contrast, deleterious mutation of the CD3 delta encoding gene in the human leads to a severe combined immunodeficiency characterised by the complete absence of mature T cell subpopulations including TCRalpha/beta and TCR gamma/delta. Defects in CD3D cause severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T-/B+/NK+ SCID) which is a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. In humans the absence of CD3 delta results in a complete arrest in thymocyte development at the stage of double negative to double positive transition and the development of gamma delta T-cell receptor-positive T cells is also impaired.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

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