Data Sheet (Cat.No.TMAY-01399)

Anti-CD3 epsilon/CD3e Antibody (2H914)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2H914
Purification:	Protein A

Applications

Verified Activity:	1. CD3E was immunoprecipitated using: -Lane A:0.5 mg Jurkat Whole Cell Lysate. -Lane B:0.5 mg HuT78 Whole Cell Lysate. -2 µL anti-CD3E rabbit monoclonal antibody and 15 µl of 50 % Protein G agarose. -Primary antibody: -Anti-CD3E rabbit monoclonal antibody, at 1:100 dilution. -Secondary antibody: -Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution. -Developed using the odyssey technique. -Performed under reducing conditions. -Predicted band size: 23 kDa. -Observed band size: 23 kDa. 2. Anti-CD3E rabbit monoclonal antibody at 1:500 dilution. -Lane A: Hu-T78 Whole Cell Lysate. -Lane B: Jurakt Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. -Predicted band size:23 kDa. -Observed band size:23 kDa(We are unsure as to the identity of these extra bands.)
Application:	IP,WB
Recommended	WB: 1:500-1:2000; IP: 1-4 µL/mg of lysate

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 CD3e / CD3 epsilon Protein (TMPY-01191)
Antigen Species:	Human
Synonyms:	CD3e molecule, epsilon (CD3-TCR complex);CD3 ε/CD3e;CD3e molecule, ε (CD3-TCR complex)
Biology Area:	ITIM/ITAM Immunoreceptors and Related Molecules

Research Background

T-cell surface glycoprotein CD3 epsilon chain, also known as CD3E, is a single-pass type I membrane protein. CD3E contains 1 Ig-like (immunoglobulin-like) domain and 1 ITAM domain. CD3E, together with CD3-gamma, CD3-delta and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. The CD3 epsilon subunit of the T cell receptor (TCR) complex contains two defined signaling domains, a proline-rich sequence and an immune tyrosine activation motifs (ITAMs), and this complex undergoes a conformational change upon ligand binding that is thought to be important for the activation of T cells. In the CD3 epsilon mutant mice, all stages of T cell development and activation that are TCR-dependent were impaired, but not eliminated, including activation of mature naïve T cells with the MHCII presented superantigen, staphylococcal enterotoxin B, or with a strong TCR cross-linking antibody specific for either TCR-Cbeta or CD3 epsilon. 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. CD3E plays an essential role in T-cell development, and defects in CD3E gene cause severe immunodeficiency. Homozygous mutations in CD3D and CD3E genes lead to a complete block in T-cell development and thus to an early-onset severe combined immunodeficiency phenotype.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481