

Product datasheet for **TA327165**

CD3E Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, IP, WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human CD3E
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	CD3e molecule
Database Link:	NP_000724 Entrez Gene 12501 Mouse Entrez Gene 315609 Rat Entrez Gene 916 Human P07766



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Background:

When T cells encounter antigens via the T cell receptor (TCR), information about the quantity and quality of antigens is relayed to the intracellular signal transduction machinery (1). This activation process depends mainly on CD3 (Cluster of Differentiation 3), a multiunit protein complex that directly associates with the TCR. CD3 is composed of four polypeptides: ζ , η , ϵ and δ . Each of these polypeptides contains at least one immunoreceptor tyrosine-based activation motif (ITAM) (2). Engagement of TCR complex with foreign antigens induces tyrosine phosphorylation in the ITAM motifs and phosphorylated ITAMs function as docking sites for signaling molecules such as ZAP-70 and p85 subunit of PI-3 kinase (3,4). TCR ligation also induces a conformational change in CD3 ζ , such that a proline-region is exposed and then associates with the adapter protein Nck (5). 1. Kuhns, M.S. et al. (2006) *Immunity* 24, 133-139. 2. Pitcher, L.A. and van Oers, N.S. (2003) *Trends Immunol.* 24, 554-560. 3. Osman, N. et al. (1996) *Eur. J. Immunol.* 26, 1063-1068. 4. Hatada, M.H. et al. (1995) *Nature* 377, 32-38. 5. Gil, D. et al. (2002) *Cell* 109, 901-912.

Synonyms:

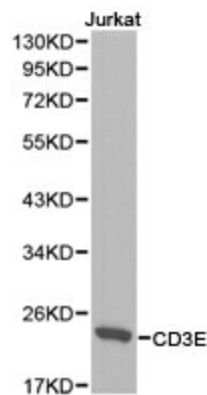
IMD18; T3E; TCRE

Protein Families:

Druggable Genome, Transmembrane

Protein Pathways:

Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway

Product images:

Western blot analysis of extracts of Jurkat cell lines, using CD3E antibody.