

# Anti-CD3 zeta Antibody

0805-7



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB, IF-Cell, FC
<b>Molecular Wt:</b>	Predicted band size: 19 kDa

**Description:** Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways. CD3Z ITAMs phosphorylation creates multiple docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme. Plays an important role in intrathymic T-cell differentiation. Additionally, participates in the activity-dependent synapse formation of retinal ganglion cells (RGCs) in both the retina and dorsal lateral geniculate nucleus (dLGN).

**Immunogen:** Synthetic peptide within C-terminal Human CD3 zeta.

**Positive control:** Jurkat cell lysate, A549, HeLa, HT-29, Jurkat.

**Subcellular location:** Cell membrane.

**Database links:** SwissProt: P20963 Human

**Recommended Dilutions:**

<b>WB</b>	1:1,000
<b>IF-Cell</b>	1:500-1:2,000
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Immunogen affinity purified.

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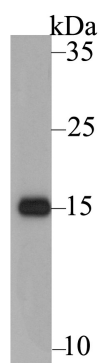
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Technical:0086-571-89986345

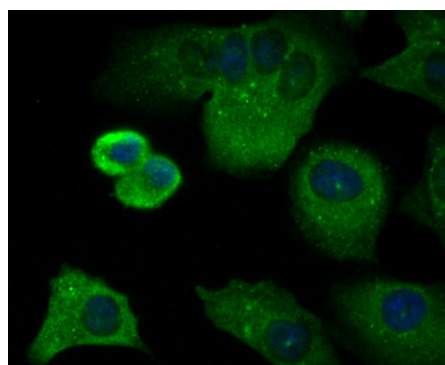
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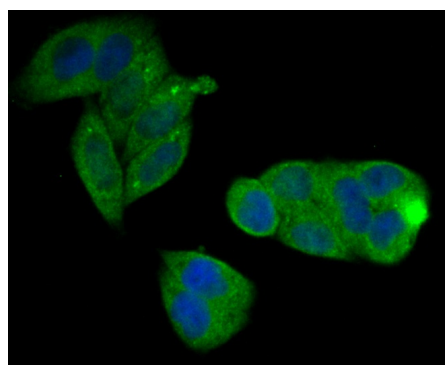
## Images



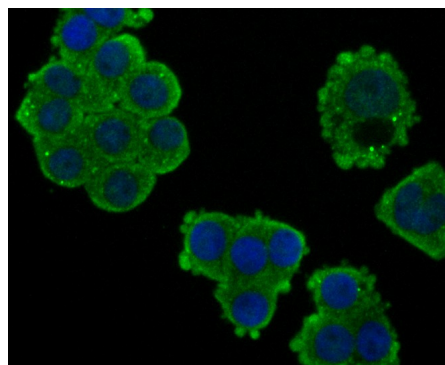
**Fig1:** Western blot analysis of CD3 zeta on Jurkat cell lysate using anti-CD3 zeta antibody at 1/1,000 dilution.



**Fig2:** ICC staining CD3 zeta in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** ICC staining CD3 zeta in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig4:** ICC staining CD3 zeta in HT-29 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Barber E K et al. The CD4 and CD8 antigens are coupled to a protein-tyrosine kinase (p56lck) that phosphorylates the CD3 complex. Proc Natl Acad Sci USA 86:3277-3281 (1989).
2. Iwashima M et al. Sequential interactions of the TCR with two distinct cytoplasmic tyrosine kinases. Science 263:1136-1139 (1994).

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