10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-CD3E Antibody (internal region)

Purified Goat Polyclonal Antibody
Catalog # AF4191a

Specification

Goat Anti-CD3E Antibody (internal region) - Product Information

Application	**WB, E**
Primary Accession	P07766
Other Accession	315609(rat), NP_000724.1
Reactivity	**Human**
Predicted	**Human, Rat, Pig**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5**
Calculated MW	**23147**

Goat Anti-CD3E Antibody (internal region) - Additional Information

Gene ID 916

Other Names
CD3E; CD3e molecule, epsilon (CD3-TCR complex); IMD18; T3E; TCRE; CD3-epsilon; CD3e antigen, epsilon polypeptide (TiT3 complex); T-cell antigen receptor complex, epsilon subunit of T3; T-cell surface antigen T3/Leu-4 epsilon chain; T-cell surface glycoprotein CD3 epsilon chain

Dilution
WB~~1:1000
E~~N/A

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen
Peptide with sequence C-RKGQRDLYSGLNQR, from the internal region of the protein sequence according to NP_000724.1.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-CD3E Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CD3E Antibody (internal region) - Protein Information

Name CD3E

Synonyms T3E

Function
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 (PubMed:2470098). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development. Initiates the TCR-CD3 complex assembly by forming the two heterodimers CD3D/CD3E and CD3G/CD3E. Also participates in internalization and cell surface down- regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1. Ligand recognition inhibits T-cell activation by promoting interaction with NCK1, which prevents CD3E-ZAP70 interaction and blocks the ERK- NFkB signaling cascade and calcium influx (PubMed:38614099).

Cellular Location
Cell membrane; Single-pass type I membrane protein

Goat Anti-CD3E Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-CD3E Antibody (internal region) - Images

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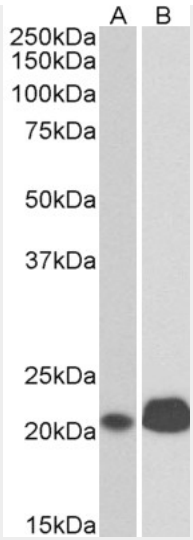

AF4191a (0.1 µg/ml) staining of Jurkat (A) and Molt4 (B) lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-CD3E Antibody (internal region) - References

Local changes in lipid environment of TCR microclusters regulate membrane binding by the CD3ε cytoplasmic domain. Gagnon E, Schubert DA, Gordo S, Chu HH, Wucherpfennig KW. The Journal of experimental medicine 2012 Dec 209 (13): 2423-39.