

CD3E Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13531b**Specification**

CD3E Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [P07766](#)**CD3E Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 916**Other Names**

T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain, CD3e, CD3E, T3E

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13531b was selected from the C-term region of CD3E. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CD3E Antibody (C-term) Blocking peptide - 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: <http://www.uniprot.org/citations/2470098> target="_blank">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. Participates also in

internalization and cell surface down- regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128).

Cellular Location

Cell membrane; Single-pass type I membrane protein

CD3E Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

CD3E Antibody (C-term) Blocking peptide - Images**CD3E Antibody (C-term) Blocking peptide - Background**

The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, form the T-cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. Defects in this gene cause immunodeficiency. This gene has also been linked to a susceptibility to type 1 diabetes in women.

CD3E Antibody (C-term) Blocking peptide - References

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Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Brophy, K., et al. BMC Med. Genet. 11, 76 (2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Su, Z., et al. Int. J. Mol. Med. 24(4):437-444(2009)