

# Anti-CD3 Reference Antibody (otelixizumab)

Recombinant Antibody

Catalog # APR10613

## Product Information

---

<b>Application</b>	FC, Kinetics, Animal Model
<b>Primary Accession</b>	<a href="#">P07766</a>
<b>Reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	23147

## Additional Information

---

<b>Target/Specificity</b>	CD3
<b>Endotoxin</b>	
<b>Conjugation</b>	Unconjugated
<b>Expression system</b>	CHO Cell
<b>Format</b>	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

## Protein Information

---

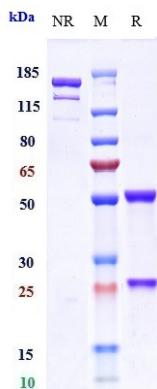
<b>Name</b>	CD3E
<b>Synonyms</b>	T3E
<b>Function</b>	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response (PubMed: <a href="#">15294938</a> , PubMed: <a href="#">15546002</a> , PubMed: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> , PubMed: <a href="#">8490660</a> ). 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 CD247/CD3Z (PubMed: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> ). All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain (PubMed: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> ). 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: <a href="#">2470098</a> , PubMed: <a href="#">40592325</a> ). CD3E ITAM phosphorylation creates docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme (By similarity). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development (By similarity). 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 ITPR1L1 (PubMed:[38614099](#)). 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:[12110186](#), PubMed:[38614099](#)).

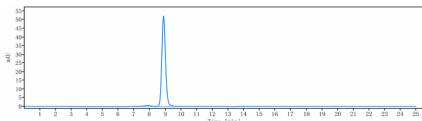
## Cellular Location

Cell membrane; Single-pass type I membrane protein

## Images



Anti-CD3 Reference Antibody (otelixizumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-CD3 Reference Antibody (otelixizumab) is more than 95% ,determined by SEC-HPLC.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.