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Anti-CD3 Reference Antibody (Muromonab)

Recombinant Antibody
Catalog # APR10407

Specification

Anti-CD3 Reference Antibody (Muromonab) - Product Information

Application	**FC, Kinetics, Animal Model**
Primary Accession	P07766
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Isotype	**mIgG2**
Calculated MW	**146.34 KDa**

Anti-CD3 Reference Antibody (Muromonab) - Additional Information

Target/Specificity
CD3

Endotoxin
< 0.001EU/ μg,determined by LAL method.

Conjugation
Unconjugated

Expression system
CHO Cell

Format
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Anti-CD3 Reference Antibody (Muromonab) - 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

Anti-CD3 Reference Antibody (Muromonab) - 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

Anti-CD3 Reference Antibody (Muromonab) - Images