

# Product datasheet

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ARG62800 anti-CD3 epsilon antibody [MEM-57] (Biotin)

Package: 100 μg Store at: 4°C

## **Summary**

Product Description Biotin-conjugated Mouse Monoclonal antibody [MEM-57] recognizes CD3 epsilon

Tested Reactivity Hu
Tested Application FACS

Specificity The clone MEM-57 reacts with gamma-epsilon and delta-epsilon dimers of human CD3 complex, a part

of a bigger multisubunit T cell receptor complex (CD3/TCR) expressed on peripheral blood T

lymphocytes and mature thymocytes.

HLDA IV.; WS Code T 96

Host Mouse

**Clonality** Monoclonal

Clone MEM-57

Isotype IgG2a

Target Name CD3 epsilon

Species Human

Immunogen Human thymocytes and T lymphocytes.

Conjugation Biotin

Alternate Names CD3E; CD3 Epsilon Subunit Of T-Cell Receptor Complex; T-Cell Surface Glycoprotein CD3 Epsilon Chain;

CD3e Antigen, Epsilon Polypeptide (TiT3 Complex); T-Cell Surface Antigen T3/Leu-4 Epsilon Chain; CD3e

Molecule, Epsilon (CD3-TCR Complex); CD3-Epsilon; CD3epsilon

## **Application Instructions**

Application table	Application	Dilution
	FACS	2 - 5 μg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

#### **Properties**

Form Liquid

Purification Note The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free

of unconjugated biotin.

Buffer PBS (pH 7.4) and 15 mM Sodium azide

Preservative 15 mM Sodium azide

Concentration 1 mg/ml

Storage instruction Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid

repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be

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Note

For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Database links <u>GeneID: 915 Human</u>

Swiss-port # P04234 Human

Gene Symbol CD3E

Gene Full Name CD3 Epsilon Subunit Of T-Cell Receptor Complex

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, forms 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 I diabetes in women.

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.

Highlight Related products:

CD3 antibodies; CD3 ELISA Kits; CD3 Duos / Panels; CD3 recombinant proteins; Anti-Mouse IgG

secondary antibodies; Related news:

New antibody panels and duos for Tumor immune microenvironment

<u>Tumor-Infiltrating Lymphocytes (TILs)</u> <u>Exploring Antiviral Immune Response</u>

Research Area Cancer antibody; Developmental Biology antibody; Immune System antibody; Lymphocyte Marker

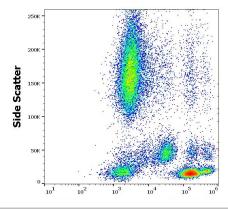
antibody; Inflammatory Cell Marker antibody; T-cell Marker antibody; T-cell infiltration Study antibody;

Tumor-infiltrating Lymphocyte Study antibody

Calculated Mw 19 kDa

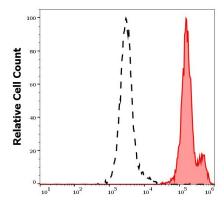
Cellular Localization Cell membrane, Membrane

## **Images**



ARG62800 anti-CD3 epsilon antibody [MEM-57] (Biotin) FACS image

Flow Cytometry: Human peripheral whole blood stained with ARG62800 anti-CD3 epsilon antibody [MEM-57] (Biotin) at 4  $\mu$ g/ml dilution, followed by Streptavidin (APC).



## ARG62800 anti-CD3 epsilon antibody [MEM-57] (Biotin) FACS image

Flow Cytometry: Separation of human CD3 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed). Human peripheral whole blood stained with ARG62800 anti-CD3 epsilon antibody [MEM-57] (Biotin) at 4  $\mu g/ml$  dilution, followed by Streptavidin (APC).