ARG65369
anti-CD3 epsilon antibody [145-2C11]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Hamster Monoclonal antibody [145-2C11] recognizes CD3 epsilon
Tested Reactivity	Ms
Tested Application	CyTOF®-candidate, FACS, FuncSt, ICC/IF, IHC-Fr, IP
Specificity	The clone 145-2C11 reacts with mouse CD3 (epsilon subunit). This antibody is commonly used as a phenotypic marker for mouse T cells.
Host	Hamster
Clonality	Monoclonal
Clone	145-2C11
Isotype	IgG
Target Name	CD3 epsilon
Species	Mouse
Immunogen	Mouse BM10-37 cytotoxic T lymphocytes.
Conjugation	Un-conjugated
Alternate Names	T-cell surface antigen T3/Leu-4 epsilon chain; T3E; TCRE; T-cell surface glycoprotein CD3 epsilon chain; IMD18; CD antigen CD3e

Application Instructions

Application table

Application	Dilution
CyTOF®-candidate	Assay-dependent
FACS	1 - 2 µg/10^6 cells
FuncSt	Assay-dependent
ICC/IF	Assay-dependent
IHC-Fr	Assay-dependent
IP	1 - 2 µg / 100 - 500 µg of protein in 1 ml lysate

Application Note: Functional studies: Induction of T cell activation, proliferation or apoptosis (depending on conditions); in vivo T cell depletion.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

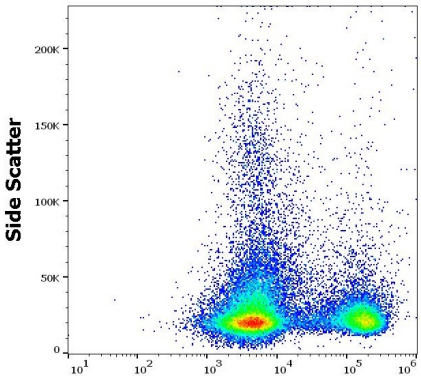
Form	Liquid
Purification	Purified by protein A

Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

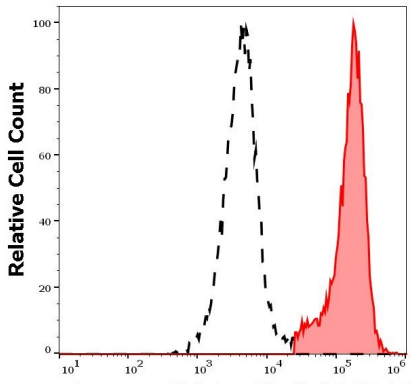
Database links	GeneID: 12501 Mouse Swiss-port # P22646 Mouse
Gene Symbol	Cd3e
Gene Full Name	CD3 antigen, epsilon polypeptide
Background	CD3 subunit complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins superfamily encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation.
Function	CD3: 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. 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). [UniProt]
Highlight	Related products: CD3 antibodies; CD3 ELISA Kits; CD3 Duos / Panels; CD3 recombinant proteins; Anti-Hamster IgG secondary antibodies; Related news: CyTOF-candidate Antibodies New antibody panels and duos for Tumor immune microenvironment Tumor-Infiltrating Lymphocytes (TILs) Exploring Antiviral Immune Response
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	23 kDa

Images



ARG65369 anti-CD3 epsilon antibody [145-2C11] FACS image

Flow Cytometry: Murine splenocyte suspension stained with ARG65369 anti-CD3 epsilon antibody [145-2C11] at 4 µg/ml dilution, followed by APC-conjugated Donkey anti-Rat antibody.



ARG65369 anti-CD3 epsilon antibody [145-2C11] FACS image

Flow Cytometry: Separation of murine CD3 positive splenocytes (red-filled) from CD3 negative splenocytes (black-dashed). Murine splenocyte suspension stained with ARG65369 anti-CD3 epsilon antibody [145-2C11] at 4 µg/ml dilution, followed by APC-conjugated Donkey anti-Rat antibody.