

ARG62859 anti-CD45 antibody [EM-05]

Package: 100 µg
Store at: -20°C

Summary

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| Product Description | Rat Monoclonal antibody [EM-05] recognizes CD45 |
| Tested Reactivity | Ms |
| Tested Application | FACS, ICC/IF, IP, WB |
| Specificity | The clone EM-05 reacts with mouse CD45 antigen (Leukocyte Common Antigen), a single chain type I transmembrane protein expressed at high level on cells of hematopoietic origin, except erythrocytes and platelets. |
| Host | Rat |
| Clonality | Monoclonal |
| Clone | EM-05 |
| Isotype | IgG |
| Target Name | CD45 |
| Species | Mouse |
| Immunogen | Murine peripheral blood leukocytes_x000D_ |
| Conjugation | Un-conjugated |
| Alternate Names | LY5; GP180; Receptor-type tyrosine-protein phosphatase C; CD45; L-CA; CD antigen CD45; Leukocyte common antigen; CD45R; LCA; T200; EC 3.1.3.48; B220 |

Application Instructions

| Application table | Application | Dilution |
|-------------------|--|-----------------|
| | FACS | 2 µg/ml |
| | ICC/IF | Assay-dependent |
| | IP | Assay-dependent |
| | WB | Assay-dependent |
| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |
| Positive Control | FACS: Murine peripheral blood leukocytes. | |

Properties

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| Form | Liquid |
| Purification | Purified by protein A |
| Purity | > 95% (by SDS-PAGE) |
| Buffer | PBS (pH 7.4) and 15 mM Sodium azide |

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| 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

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| Database links | GeneID: 19264 Mouse |
| Background | CD45 is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitosis, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq, Jun 2012] |
| Function | <p>CD45: Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity.</p> <p>(Microbial infection) Acts as a receptor for human cytomegalovirus protein UL11 and mediates binding of UL11 to T-cells, leading to reduced induction of tyrosine phosphorylation of multiple signaling proteins upon T-cell receptor stimulation and impaired T-cell proliferation. [UniProt]</p> |
| Research Area | Developmental Biology antibody; Immune System antibody; Neuroscience antibody; Signaling Transduction antibody; Mouse Inflammatory Cell Marker antibody; B Cell Marker antibody |
| Calculated Mw | 147 kDa |
| PTM | Heavily N- and O-glycosylated. |