

Product datasheet

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ARG66333 anti-CD45 antibody [SQab1881]

Package: 100 μl, 50 μl Store at: -20°C

Summary

Product Description Recombinant Rabbit Monoclonal antibody [SQab1881] recognizes CD45

Tested Reactivity Hu

Tested Application FACS, IHC-P, WB

Host Rabbit

Clone SQab1881

Isotype IgG
Target Name CD45

Species Human

Immunogen Synthetic peptide corresponding to aa. 300-400 (intracellular) of Human CD45.

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	1:800 - 1:2000
	IHC-P	1:400 - 1:800
	WB	1:1000 - 1:2000
Application Note	WB: The antibody has been tested to get negative results with mouse spleen and rat spleen tissue lysates by WB. IHC-P: Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid	
Purification	Purification with Protein A.	
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.	
Preservative	0.01% Sodium azide	
Stabilizer	40% Glycerol and 0.05% BSA	
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. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw	

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

Bioinformation

Gene Symbol

PTPRC

Gene Full Name

protein tyrosine phosphatase, receptor type, C

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

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.

(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]

Highlight

Related products:

CD45 antibodies; CD45 Duos / Panels; Anti-Rabbit IgG secondary antibodies;

Related news:

Cancer Pathology Markers (SQ clones)

Research Area

Developmental Biology antibody; Immune System antibody; Neuroscience antibody; Signaling Transduction antibody; Mouse Inflammatory Cell Marker antibody; B Cell Marker antibody

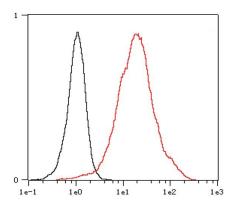
Calculated Mw

147 kDa

PTM

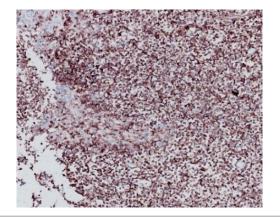
Heavily N- and O-glycosylated. [UniProt]

Images



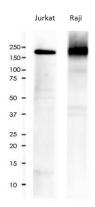
ARG66333 anti-CD45 antibody [SQab1881] FACS image

Flow Cytometry: Jurkat cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% TritonX-100 for 15 min. The cells were stained with ARG66333 anti-CD45 antibody [SQab1881] (red) at 1:2,000 dilution in 1x PBS/1% BSA for 30 min at RT, followed by Alexa Fluor® 488 labelled secondary antibody. Unlabelled sample (black) was used as a control. .



ARG66333 anti-CD45 antibody [SQab1881] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human tonsil tissue stained with ARG66333 anti-CD45 antibody [SQab1881] at 1:800 dilution. Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0.



ARG66333 anti-CD45 antibody [SQab1881] WB image

Western blot: 10 μg of Jurkat and Raji cell lysates stained with ARG66333 anti-CD45 antibody [SQab1881] at 1:1000 dilution.