

## Product datasheet

# Anti-CD45 antibody [I3/2.3] (Allophycocyanin) ab25519

### Overview

<b>Product name</b>	Anti-CD45 antibody [I3/2.3] (Allophycocyanin)
<b>Description</b>	Rat monoclonal [I3/2.3] to CD45 (Allophycocyanin)
<b>Host species</b>	Rat
<b>Conjugation</b>	Allophycocyanin. Ex: 645nm, Em: 660nm
<b>Specificity</b>	ab25519 recognizes a framework epitope present on all CD45 isoforms.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, RIA, IP, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse
<b>Immunogen</b>	The details of the immunogen for this antibody are not available.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C.
<b>Storage buffer</b>	Preservative: 0.09% Sodium Azide Constituents: 16% Sucrose, PBS and stabilizing agent.
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	I3/2.3
<b>Isotype</b>	IgG2b
<b>Light chain type</b>	kappa

### Applications

Our [Abpromise guarantee](#) covers the use of **ab25519** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		
RIA		

Application	Abreviews	Notes
IP		
IHC-Fr		
<b>Application notes</b>	<p>Flow Cyt: Use 0.2µg for 10<sup>6</sup> cells. See Haidl et al.</p> <p>IHC-Fr: Use at an assay dependent dilution.</p> <p>IP: Use at an assay dependent dilution.</p> <p>RIA: Use at an assay dependent dilution.</p> <p>Not yet tested in other applications.</p> <p>Optimal dilutions/concentrations should be determined by the end user.</p>	
<b>Target</b>		
<b>Function</b>	<p>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.</p>	
<b>Involvement in disease</b>	<p>Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+)) SCID [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.</p>	
<b>Sequence similarities</b>	<p>Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily. Contains 2 fibronectin type-III domains. Contains 2 tyrosine-protein phosphatase domains.</p>	
<b>Domain</b>	<p>The first PTPase domain interacts with SKAP1.</p>	
<b>Post-translational modifications</b>	<p>Heavily N- and O-glycosylated.</p>	
<b>Cellular localization</b>	<p>Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.</p>	

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