

Product datasheet

Anti-CD45 antibody [OX30] - BSA and Azide free ab244554

1 Image

Overview

Product name	Anti-CD45 antibody [OX30] - BSA and Azide free
Description	Mouse monoclonal [OX30] to CD45 - BSA and Azide free
Host species	Mouse
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Rat
Immunogen	Tissue, cells or virus corresponding to Rat CD45. Rat lymph node cells and glycoproteins.
Positive control	Flow Cyt: Lewis rat splenocytes.
General notes	<p>ab244554 is the carrier-free version of ab6329.</p> <p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at +4°C. Do Not Freeze.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein G purified
Purification notes	Purified from TCS.
Clonality	Monoclonal
Clone number	OX30
Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab244554 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		Use a concentration of 0.2 µg/ml.

Target

Function	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.
Involvement in disease	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.
Sequence similarities	Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily. Contains 2 fibronectin type-III domains. Contains 2 tyrosine-protein phosphatase domains.
Domain	The first PTPase domain interacts with SKAP1.

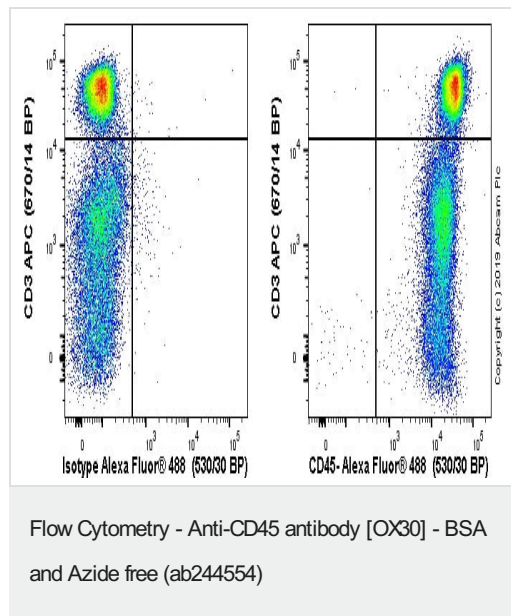
Post-translational modifications

Heavily N- and O-glycosylated.

Cellular localization

Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.

Images



This data was generating using the same clone in a different formulation (**ab6329**).

Lewis rat splenocytes stained with **ab6329** (right) or mouse IgG2ak (left). Lewis rat splenocytes were incubated for 30 min on ice in 10% rat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (**ab6329**) or mouse IgG2ak Isotype (**ab18450**) (1×10^6 in 100 μ l at 0.2 μ g/ml) for 30 min on ice.

The secondary antibody Goat Anti-Mouse IgG H&L (Alexa Fluor[®] 488, pre-adsorbed) (**ab150117**) was used at 1/2000 dilution for 30 min at 4°C. The cells were simultaneously stained with CD3 APC antibody.

Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on viable lymphocytes.

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