abcam

Product datasheet

Anti-CD45 antibody [EPR20033] - BSA and Azide free ab229292

Recombinant RabMAb

2 Images

Overview

Product name	Anti-CD45 antibody [EPR20033] - BSA and Azide free
Description	Rabbit monoclonal [EPR20033] to CD45 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide within Mouse CD45 aa 1200 to the C-terminus. The exact sequence is proprietary. Database link: P06800
Positive control	WB: Mouse thymus and spleen tissue lysate.
General notes	Ab229292 is the carrier-free version of ab208022. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab229292 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

	term. Avoid freeze / thaw cycle.
Storage buffer	Constituent: PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20033
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab229292** in the following tested applications.

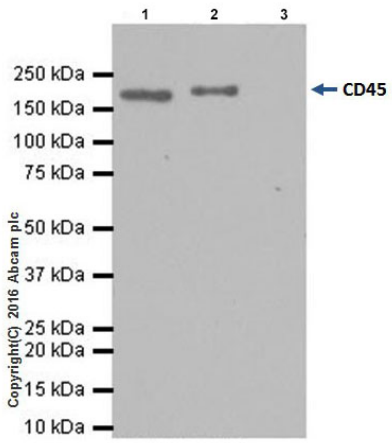
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 180, 240 kDa (predicted molecular weight: 145 kDa).

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



Immunoprecipitation - Anti-CD45 antibody [EPR20033] - BSA and Azide free (ab229292)

CD45 was immunoprecipitated from 0.35 mg of J774A.1 (Mouse reticulum cell sarcoma macrophage cell line) whole cell lysate with ab208022 at 1/30 dilution.

Western blot was performed from the immunoprecipitate using ab208022 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.

Lane 1: J774A.1 whole cell lysate 10µg (Input).

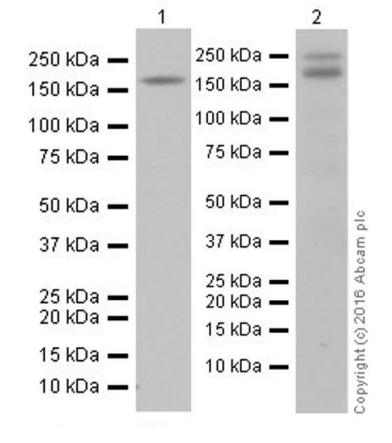
Lane 2: ab208022 IP in J774A.1 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab208022 in J774A.1 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208022).



Western blot - Anti-CD45 antibody [EPR20033] - BSA and Azide free (ab229292)

All lanes : Anti-CD45 antibody [EPR20033] (ab208022) at 1/1000 dilution

Lane 1 : Mouse thymus lysate
Lane 2 : Mouse spleen tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Predicted band size: 145 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 3 minutes; Lane 2: 15 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab208022).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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