Data Sheet (Cat.No.TMAH-00202)

Anti-CD45 Antibody (8Y7)

Product Details

Ig Type:	IgG2b
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8Y7
Purification:	Protein A purified

Applications

Verified Activity:

1. Western Blot
-Positive WB detected in: Jurkat whole cell lysate, Raji whole cell lysate, THP-1 whole cell lysate
-All lanes CD45 antibody at 1:2000
-Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
-Predicted band size: 148, 132, 143, 141, 139, 136 KDa
-Observed band size: 180-250 KDa
-Exposure time:15min
2. Western Blot
-Positive WB detected in: U937 whole cell lysate
-All lanes CD45 antibody at 1:2000
-Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
-Predicted band size: 148, 132, 143, 141, 139, 136 KDa
-Observed band size: 180-250 KDa
-Exposure time:5min
3. Western Blot
-Positive WB detected in: THP-1whole cell lysate at 20μg, 10μg, 5μg, 2.5μg, 1.25μg -All lanes: CD45 antibody at 1:2000
-Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
-Predicted band size: 148, 132, 143, 141, 139, 136 KDa
-Observed band size: 180-250 KDa
-Exposure time:15min
4. Western Blot
-Positive WB detected in: 20μg THP-1 whole cell lysate CD45 antibody at 1:2000, 1:4000, 1:8000, 1:16000, 1:32000, 1:64000, 1:128000
-Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
-Predicted band size: 148, 132, 143, 141, 139, 136 KDa
-Observed band size: 180-250 KDa
-Exposure time:15min
5. IHC image of TMAH-00202 diluted at 1:500 and staining in paraffin-embedded human tonsil tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG labeled by HRP and visualized using 0.05% DAB.
6. IHC image of TMAH-00202 diluted at 1:500 and staining in paraffin-embedded human lymph node tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen

retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG labeled by HRP and visualized using 0.05% DAB.
7. Immunofluorescence staining of Jurkat cells with TMAH-00202 at 1:250, counter-stained with DAPI. The cells were incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG (H+L).
8. Immunofluorescence staining of Raji cells with TMAH-00202 at 1:250, counter-stained with DAPI. The cells were incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG (H+L).
9. Immunofluorescence staining of U937 cells with TMAH-00202 at 1:250, counter-stained with DAPI. The cells were incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG (H+L).
10. Overlay histogram showing Jurkat cells stained with TMAH-00202 (red line) at 1:500. The cells were incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1μg/1*10^6 cells) for 1 h at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG(H+L) at 1/100 dilution for 30min at 4°C. Isotype control antibody (green line) was mouse IgG2b (1μg/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.
11. Overlay histogram showing Raji cells stained with TMAH-00202 (red line) at 1:500. The cells were incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1μg/1*10^6 cells) for 1 h at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG(H+L) at 1/100 dilution for 30min at 4°C. Isotype control antibody (green line) was mouse IgG2b (1μg/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.

Application: ELISA,FCM,IF,IHC,WB

Properties

Purity: >95%

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein: Human Receptor-type tyrosine-Protein phosphatase C Protein (24-575AA)

Antigen Species: Human

Gene ID: 5788

Uniprot ID: P08575

Synonyms: CD45;EC 3.1.3.48;B220;LCA;T200;PTPRC;GP180;LY5;CD45R;L-CA

Biology Area: Immunology

Research Background

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.

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