abcam

ab253258

PE Anti-SIRPB1 antibody [B4B6]

Anti-SIRPB1 antibody [B4B6] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [B4B6] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Signal-regulatory protein beta-1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link O00241
Clone number	B4B6
Purification technique	Size-exclusion chromatography
Purification notes	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µL for 10^6 Cells
Notes	Or 100 µl of whole blood.

Target data

See full target information Signal-regulatory protein beta-1

Function	Immunoglobulin-like cell surface receptor involved in the negative regulation of receptor tyrosine kinase-coupled signaling processes. Also participates in the recruitment of tyrosine kinase SYK. Triggers activation of myeloid cells when associated with TYROBP (PubMed:10604985).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Signal regulatory protein beta-1 (SIRPB1) also known as CD172b is a transmembrane glycoprotein that functions as an inhibitory receptor. It weighs about 55 kDa. SIRPB1 is mainly expressed on myeloid cells including monocytes macrophages and granulocytes. It contains an immunoreceptor tyrosine-based inhibitory motif (ITIM) which recruits phosphatases such as Src homology region 2 domain-containing phosphatase-1 (SHP-1) upon phosphorylation. This motif plays an important role in mediating inhibitory signals inside the cell.
Biological function summary	Within the immune system context SIRPB1 acts to regulate functions related to myeloid cells. It does not form part of a larger receptor complex but significantly influences cell communication. It modulates responses like phagocytosis and cellular activation maintaining balanced immune reactions. The interaction with its ligands like CD47 or DAP12 provides insights into its ability to send inhibitory signals contributing to the overall control of immune responses.

Pathways	SIRPB1 gets involved in immune regulation and signal transduction. It plays a significant role in the CD47-SIRP signaling pathway which affects processes like cell migration and phagocytosis. The interaction with SHP-1 and SHP-2 phosphatases signifies its integration within signaling networks governing negative regulation of cellular activation. Through these pathways SIRPB1 interacts with related proteins like SIRPA and SIRPG which have similar functions yet distinct roles within the immune system.
Associated diseases and disorders	SIRPB1 has associations with inflammatory conditions and cancer. In inflammatory disorders like rheumatoid arthritis altered expression of SIRPB1 can contribute to pathogenesis by modifying immune cell activation further linking it with SIRPA in the modulation of immune responses. In cancer SIRPB1's role extends to tumor immune evasion where upregulated CD47 affects SIRPB1 pathways to inhibit phagocytosis by macrophages influencing tumor progression. Understanding SIRPB1's connections with these proteins and pathways opens avenues for therapeutic interventions in these diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

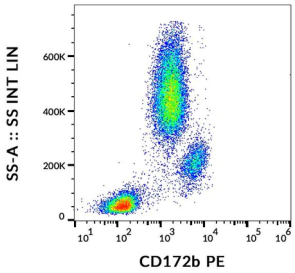
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - PE Anti-SIRPB1 antibody [B4B6] (ab253258)

SIRPB1 Flow Cytometry staining using mouse Anti-SIRPB1 antibody

Flow cytometric analysis of human peripheral blood labeling SIRP beta 1/CD172b with ab253258. Surface staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.