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Product Data Sheet

PE anti-human CD172a/b (SIRPα/β)

Catalog # / Size: 323805 / 25 tests
323806 / 100 tests

Clone: SE5A5

Isotype: Mouse IgG1, κ

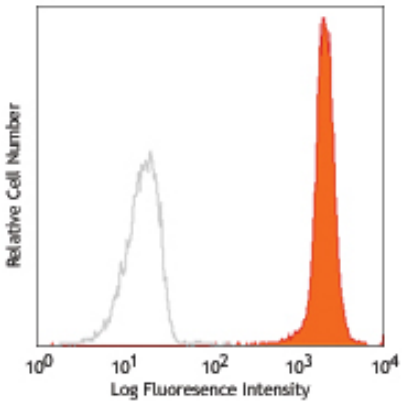
Immunogen: NIH-3T3/hu-SIRPα cell line

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood granulocytes stained with SE5A5 PE

Applications:

Applications: FC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

Application Notes: Clone SE5A5 recognizes a common epitope on SIRPα (90 kD) and SIRPβ (50 kD).[3] A high degree of homology has been found between SIRP family isoforms alpha and beta at the level of extracellular domains. Consequently, many anti SIRP antibody clones, such as SE5A5, have been reported to cross react with several SIRP isoforms.[4,5,6] It reacts with CD172a and has weak cross-reaction with CD172b. This antibody is able to block the binding of SIRPα (SIRPα1 and SIRPα2) to CD47.

Application References:
1. Seiffert M, *et al.* 1999. *Blood* 94:3633.
2. Dubois NC, *et al.* 2011. *Nat. Biotechnol.* 29:1011.
3. Barros MM, *et al.* 2009. *Transfusion* 49:154.
4. Liu Y, *et al.* 2005. *J. Biol. Chem.* 280:36132.
5. Seiffert M, *et al.* 1999. *Blood* 94:3633.
6. Barclay AN. 2009. *Curr. Opin. Immunol.* 21:47.

Description: CD172a, also known as signal-regulatory protein α (SIRPα), src homology 2 domain-containing phosphatase substrate-1 (SHPS1), PTPNS1, BIT, MFR, and P84, is a 75-110 kD transmembrane glycoprotein involved in receptor tyrosine kinase coupled signaling pathway. It belongs to the Ig superfamily and is primarily expressed on monocytes/macrophages, granulocytes, dendritic cells, and neurons. CD172a serves as a substrate of activated receptor tyrosine kinases (RTKs). The interaction of CD172a intracellular domain with SHP-1 and SHP-2 displays negative signaling in the regulation of leukocyte adhesion and transmigration, T cell activation, macrophage fusion, and phagocytosis. CD47 (IAP) is the extracellular ligand for CD172a. SIRPα was recently demonstrated to be a specifc marker for cardiomyocytes derived from human pluripotent stem cells.[2]

Antigen References:
1. Seiffert M, *et al.* 1999. *Blood* 94:3633.
2. Seiffert M, *et al.* 2001. *Blood* 97:2741.
3. Timms JF, *et al.* 1998. *Mol. Cell Biol.* 18:3838.
4. Barclay AN and Brown MH. 2006. *Nat. Rev. Immnuol.* 6:457.

Related Products:

Product	Clone	Application
Cell Staining Buffer		FC, ICC, ICFC
PE Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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