abcam

ab233256

APC Anti-Bone marrow stromal cell antigen 1 antibody [SY11B5]

Anti-Bone marrow stromal cell antigen 1 antibody [SY11B5] conjugated to APC - suitable for flow cytometry, and reacts with human samples. Clone [SY11B5] is a mouse monoclonal antibody cited in 2 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Full Length Protein corresponding to Human BST1. The exact immunogen used to generate this antibody is proprietary information. Database link Q10588
Clone number	SY11B5
Purification technique	Size-exclusion chromatography

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	10 µL for 10^6 Cells
Notes	-

Expected

Species	Primates
Dilution info	10 µL for 10^6 Cells
Notes	-

Target data

See full target information BST1

Function	Catalyzes both the synthesis of cyclic ADP-beta-D-ribose (cADPR) from NAD(+), and its hydrolysis to ADP-D-ribose (ADPR) (PubMed:7805847). Cyclic ADPR is known to serve as an endogenous second messenger that elicits calcium release from intracellular stores, and thus regulates the mobilization of intracellular calcium (Probable). May be involved in pre-B-cell growth (Probable).

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	Bone marrow stromal cell antigen 1 (BST-1) also known as CD157 is a glycosylphosphatidylinositol-anchored protein with a molecular weight of approximately 38-42 kDa. You find BST-1 expression on the surface of various cell types especially within bone marrow stromal cells and cells of the immune system such as monocytes and macrophages. This protein functions as an ecto-enzyme with ADP-ribosyl cyclase activity and is part of the NADase enzyme family. Its mechanical role involves metabolizing extracellular NAD+ influencing cellular calcium signaling and energy metabolism.

Biological function summary	BST-1 contributes to the regulation of cellular interactions and immune responses. It participates in the organization of leukocyte trafficking and the formation of signal transduction cascades. BST-1 operates as a single protein but interacts with other membrane proteins to coordinate cellular communication. You can observe its function in processes like cell adhesion and migration impacting the immune surveillance and response systems.
Pathways	BST-1 plays a role in immune signaling and calcium-signaling pathways. In the immune system pathway it associates with molecules such as integrins to modulate leukocyte adhesion and transmigration. The calcium-signaling pathway is another key area where BST-1 interacts with intracellular proteins influencing various cellular targets and affecting metabolic processes critical for cell survival and proliferation.
Associated diseases and disorders	Scientists have linked BST-1 to various conditions such as leukemia and chronic inflammation. Its expression levels often change in these diseases emphasizing its potential role in their progression. Researchers also explore the connection between BST-1 and other proteins like CD38 in the context of leukemia where both proteins might participate in cancer cell proliferation and survival. Understanding BST-1 in disease contexts provides insights into disease mechanisms and potential therapeutic strategies.

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

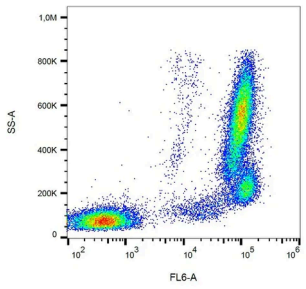
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - APC Anti-Bone marrow stromal cell antigen 1 antibody [SY11B5] (ab233256)

Bone marrow stromal cell antigen 1 Flow Cytometry staining using mouse Anti-Bone marrow stromal cell antigen 1 antibody

Surface staining of human peripheral blood leukocytes with ab233256. Gated on leukocytes.

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