

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse BST-2/Tetherin in flow cytometry.
Source	Recombinant Monoclonal Rat IgG _{2A} Clone # 44E9R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Recombinant extracellular domain of CD317
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

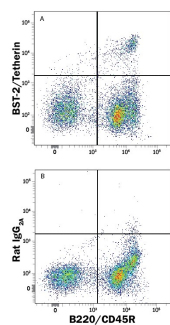
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

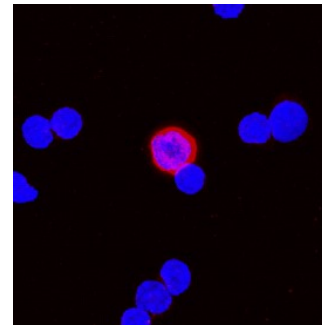
DATA

Flow Cytometry



Detection of BST-2/Tetherin in Mouse Bone Marrow Cells by Flow Cytometry. Mouse bone marrow cells were stained with Rat Anti-Mouse B220/CD45R APC-conjugated Monoclonal Antibody (Catalog # FAB1217A) and either (A) Rat Anti-Mouse BST-2/Tetherin Monoclonal Antibody (Catalog # MAB8660) or (B) Rat IgG_{2A} Isotype Control (Catalog # MAB006) followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0105B).

Immunocytochemistry



BST-2/Tetherin in Mouse Splenocytes. BST-2/Tetherin was detected in immersion fixed mouse splenocytes using Rat Anti-Mouse BST-2/Tetherin Monoclonal Antibody (Catalog # MAB8660) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

BST-2, also known as Tetherin or PDCA1 and designated CD317, is a 30-35 kDa interferon-inducible protein that shows an unusual topology. The N-terminus is cytoplasmic, followed by a transmembrane segment, an extracellular loop, and a C-terminal GPI-linkage. BST-2 is expressed on bone marrow stromal cells and is upregulated in breast cancer and astrocytoma. It binds to ILT7 on plasmacytoid dendritic cells and inhibits proinflammatory TLR7 and TLR9 signaling. BST-2 inhibits the release of Kaposi sarcoma virus, HIV-1, and Lassa virus from infected cells, but this function is counteracted by viral proteins which directly bind and trigger the degradation of BST-2.