

Alexa Fluor® 647 anti-mouse CD317 (BST2, PDCA-1) Antibody

Catalog# / Size	127014 / 100 µg
Clone	927
Regulatory Status	RUO
Other Names	BST2, tetherin, HM1.2 antigen, bone marrow stromal antigen 2, PDCA-1
Isotype	Rat IgG2b, κ
Description	CD317, known as BST2, tetherin, HM1.2 antigen, bone marrow stromal antigen 2, or PDCA-1, is type II transmembrane glycoprotein with a molecular mass of 29-33 kD. It is predominantly expressed on Type I IFN-producing cells (IPCs) in naïve mice, but is up-regulated on most cell types following stimulation with type I IFNs and IFN-gamma. It is highly expressed on terminally differentiated normal plasmacytoid dendritic cells and some tumor cells, such as multiple myeloma, renal cell carcinoma, and melanoma cells. BST2 is a recently identified, IFN-induced cellular response factor that blocks release of HIV-1 and other retroviruses from infected cells. BST2 has been found to be the natural ligand of ILT7 in human model.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse plasmacytoid dendritic cells (DCs)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunofluorescence microscopy, functional assay ² , and depletion ^{3,4} . The Ultra-LEAF™ purified antibody (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays.
Application References	<ol style="list-style-type: none"> Blasius AL, <i>et al.</i> 2006. <i>J. Immunol.</i> 177:3260. Schliemann C, <i>et al.</i> 2010. <i>Blood</i> 115:736. (FA, IF) Rajagopal D, <i>et al.</i> 2010. <i>Blood</i> 115:1949. (Depletion) Moniz RJ, <i>et al.</i> 2010. <i>FEMS Immunol. Med. Microbiol.</i> 58:397. (Depletion) Chen YL, <i>et al.</i> 2013. <i>J Exp Med.</i> 210:2515. PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	

1. Li C, *et al.* 2021. *Cell Metabolism*. 33(8):1610-1623.e5. [PubMed](#)
2. Song W, *et al.* 2022. *Immunity*. 55:290. [PubMed](#)

RRID AB_1953289 (BioLegend Cat. No. 127014)

Antigen Details

Structure	Type II transmembrane glycoprotein with a molecular mass of 29-33 kD.
Distribution	Expressed on type I IFN-producing cells, plasmacytoid dendritic cells, and neoplastic B cells, such as multiple myeloma.
Function	Recently identified antiviral protein that blocks the release of nascent retrovirus or other particles from infected cells.
Cell Type	Dendritic cells
Biology Area	Costimulatory Molecules, Immunology, Innate Immunity
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Douglas JL. <i>et al.</i> 2009. <i>J Virol</i>. 83(16):7931 2. Cao W <i>et al.</i> 2009. <i>J. Exp. Med.</i> 206(7):1603 3. Neil SJ. <i>et al.</i> 2008. <i>Nature</i> 451:425
Gene ID	69550

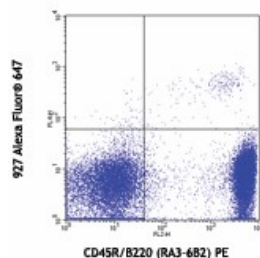
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

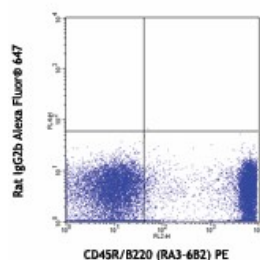
Other Formats

Purified anti-mouse CD317 (BST2, PDCA-1), PE anti-mouse CD317 (BST2, PDCA-1), Alexa Fluor® 488 anti-mouse CD317 (BST2, PDCA-1), Alexa Fluor® 647 anti-mouse CD317 (BST2, PDCA-1), APC anti-mouse CD317 (BST2, PDCA-1), Pacific Blue™ anti-mouse CD317 (BST2, PDCA-1), Biotin anti-mouse CD317 (BST2, PDCA-1), FITC anti-mouse CD317 (BST2, PDCA-1), Brilliant Violet 650™ anti-mouse CD317 (BST2, PDCA-1), PerCP/Cyanine5.5 anti-mouse CD317 (BST2, PDCA-1), Brilliant Violet 421™ anti-mouse CD317 (BST2, PDCA-1), Brilliant Violet 605™ anti-mouse CD317 (BST2, PDCA-1), TotalSeq™-A0811 anti-mouse CD317 (BST2, PDCA-1), Ultra-LEAF™ Purified anti-mouse CD317 (BST2, PDCA-1), TotalSeq™-C0811 anti-mouse CD317 (BST2, PDCA-1), Alexa Fluor® 700 anti-mouse CD317 (BST2, PDCA-1), Brilliant Violet 711™ anti-mouse CD317 (BST2, PDCA-1), TotalSeq™-B0811 anti-mouse CD317 (BST2, PDCA-1) Antibody, Spark UV™ 387 anti-mouse CD317 (BST2, PDCA-1)

Product Data



SJL mouse splenocytes stained with 927 Alexa Fluor® 647 and CD45R/B220 (RA3-6B2) PE



SJL mouse splenocytes stained with rat IgG2b isotype control Alexa Fluor® 647 and CD45R/B220 (RA3-6B2) PE

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