

FITC anti-mouse CD317 (BST2, PDCA-1) Antibody

| | |
|--------------------------|--|
| Catalog# / Size | 127007 / 25 µg 127008 / 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 FITC 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. |
| Excitation Laser | Blue Laser (488 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 | <ol style="list-style-type: none"> Boyd DF, <i>et al.</i> 2020. <i>Nature.</i> 587:466. PubMed Deslyper G, <i>et al.</i> 2021. <i>Parasitology.</i> 148:539. PubMed Wang J, <i>et al.</i> 2021. <i>Nat Commun.</i> 12:6198. PubMed Deng M, <i>et al.</i> 2020. <i>Nat Commun.</i> 11:2193. PubMed Bradley KC, <i>et al.</i> 2019. <i>Cell Rep.</i> 28:245. PubMed |

6. Shiozawa S, *et al.* 2022. *iScience*. 25:103537. [PubMed](#)
7. Winkler ES, *et al.* 2020. *Cell*. 182(4):901-918.e18. [PubMed](#)
8. McCauley ME, *et al.* 2020. *Nature*. 585(7823):96-101. [PubMed](#)
9. Stefan KL, *et al.* 2020. *Cell*. 1312:183. [PubMed](#)
10. Rappe JCF, *et al.* 2021. *J Exp Med*. 218:. [PubMed](#)
11. Fearon AE, *et al.* 2021. *iScience*. 24:103143. [PubMed](#)
12. Yáñez A *et al.* 2017. *Immunity*. 47(5):890-902. [PubMed](#)

RRID AB_2028460 (BioLegend Cat. No. 127007)
 AB_2028462 (BioLegend Cat. No. 127008)

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 |

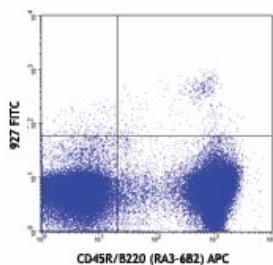
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

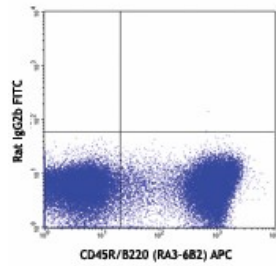
Purified anti-mouse CD317 (BST2, PDCA-1), PE anti-mouse CD317 (BST2, PDCA-1), Alexa Fluor® 488 anti-mouse CD317 (BST2, PDCA-1), Alexa Fluor® 647 anti-mouse CD317 (BST2, PDCA-1), APC anti-mouse CD317 (BST2, PDCA-1), Pacific Blue™ anti-mouse CD317 (BST2, PDCA-1), Biotin anti-mouse CD317 (BST2, PDCA-1), 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



C57BL/6 splenocytes stained with 927 FITC and CD45R/B220 (RA3-6B2) APC

C57BL/6 splenocytes stained with rat
IgG2b FITC isotype control and
CD45R/B220 (RA3-6B2) APC



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587