abcam

Product datasheet

Anti-BST2/Tetherin antibody [EPR23597-266] - BSA and Azide free ab272176

Recombinant RobMAb

4 Images

Overview

Product name Anti-BST2/Tetherin antibody [EPR23597-266] - BSA and Azide free

Description Rabbit monoclonal [EPR23597-266] to BST2/Tetherin - BSA and Azide free

Host species Rabbit

Tested applications Suitable for: ICC/IF, Flow Cyt, IP, WB

Unsuitable for: IHC-P

Species reactivity Reacts with: Mouse

Immunogen Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: Mouse spleen, thymus and lymph node tissue lysates; P388D1 whole cell lysate. ICC/IF:

Mouse splenocytes. Flow Cyt: Mouse splenocytes. IP: Mouse spleen tissue lysate.

General notes ab272176 is the carrier-free version of ab272169.

> Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cellbased assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

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Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.2

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal

Clone number EPR23597-266

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab272176 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 20 kDa.

Application notes Is unsuitable for IHC-P.

Target

Function May be involved in the sorting of secreted proteins (By similarity). May be involved in pre-B-cell

growth. Antiretroviral defense protein, that blocks release of retrovirus from the cell surface. Depleted unpon HIV-1 infection by viral VPU protein through 20S proteasome degradation. Depleted upon infection by human Kaposi's sarcoma-associated herpesvirus (KSHV) through ubiquitination and subsequent degradation. May play a role in B-cell activation in rheumatoid

arthritis.

Tissue specificity Predominantly expressed in liver, lung, heart and placenta. Lower levels in pancreas, kidney,

skeletal muscle and brain. Overexpressed in multiple myeloma cells. Highly expressed during B-cell development, from pro-B precursors to plasma cells. Highly expressed on T-cells, monocytes,

NK cells and dendritic cells (at protein level).

Sequence similarities Belongs to the tetherin family.

Domain The extracellular coiled coil domain is important for virus retention at the cell surface and

prevention of virus spreading.

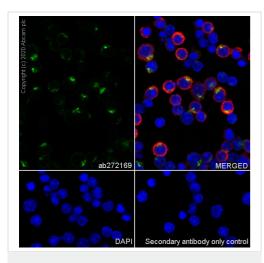
Post-translational modifications

Cellular localization

Monoubiquitinated by KSHV E3 ubiquitin-protein ligase K5, leading to its targeting to late endosomes and degradation.

Golgi apparatus > trans-Golgi network. Cell membrane. Cell membrane. Late endosome. Targeted to late endosomes upon KSHV infection and subsequent ubiquitination. Targeted to the trans-Golgi network by viral VPU protein.

Images

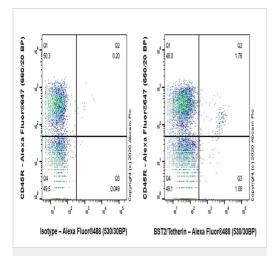


Immunocytochemistry/ Immunofluorescence - Anti-BST2/Tetherin antibody [EPR23597-266] - BSA and Azide free (ab272176)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Mouse splenocyte cells labelling BST2/Tetherin with ab272169 at 1/100 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplamic staining in mouse splenocytes. ab195889 Anti-alpha Tubulin antibody (Alexa Fluor[®] 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is **ab150077**

Secondary antibody only control: Secondary antibody is <u>ab150077</u>
Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) at 1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab272169).



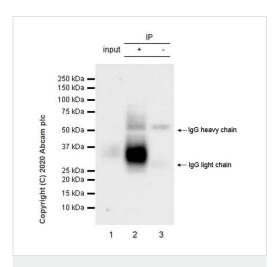
Flow Cytometry - Anti-BST2/Tetherin antibody [EPR23597-266] - BSA and Azide free (ab272176)

Flow cytometric analysis of Mouse splenocyte cells labelling BST2/Tetherin with ab272169 at 1/500 dilution (Right) compared with a Rabbit monoclonal lgG (ab172730) isotype control (Left). A Goat anti rabbit lgG (AlexaFluor 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Cells were stained with rabbit IgG (Left) or <u>ab272169</u> (Right). Then stained with anti-CD45R conjugated to Alexa Fluor® 647.

Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab272169).



Immunoprecipitation - Anti-BST2/Tetherin antibody [EPR23597-266] - BSA and Azide free (ab272176) BST2/Tetherin was immunoprecipitated from 0.35 mg Mouse spleen tissue lysate with <u>ab272169</u> at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using <u>ab272169</u> at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(<u>ab131366</u>) was used at 1/5000 dilution.

Lane 1: Mouse spleen tissue lysate 10ug

Lane 2: ab272169 IP in Mouse spleen tissue lysate

Lane 3: Rabbit monoclonal $\lg G$ ($\underline{ab172730}$) instead of $\underline{ab272169}$ in mouse spleen tissue lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 15 seconds

BST2 is type II transmembrane glycoprotein with a molecular mass of 28-40 KD, which is consistent to the literature(PMID: 22520941; PMID: 19737401).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab272169).



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