abcam

ab243230

Anti-BST2/Tetherin antibody [EPR20202-150]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR20202-150
Purification technique	Affinity purification Protein A
Concentration	0.736 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/40
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/700
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Target data

See full target information BST2

Function IFN-induced antiviral host restriction factor which efficiently blocks the release of diverse mammalian enveloped viruses by directly tethering nascent virions to the membranes of infected cells. Acts as a direct physical tether, holding virions to the cell membrane and linking virions to each other. The tethered virions can be

internalized by endocytosis and subsequently degraded or they can remain on the cell surface. In either case, their spread as cell-free virions is restricted (PubMed:18200009, PubMed:18342597, PubMed:19036818, PubMed:19879838, PubMed:20019814, PubMed:20399176, PubMed:20419159, PubMed:20940320, PubMed:21529378, PubMed:22520941, PubMed:37922253). Its target viruses belong to diverse families, including retroviridae: human immunodeficiency virus type 1 (HIV-1), human immunodeficiency virus type 2 (HIV-2), simian immunodeficiency viruses (SIVs), equine infectious anemia virus (EIAV), feline immunodeficiency virus (FIV), prototype foamy virus (PFV), Mason-Pfizer monkey virus (MPMV), human T-cell leukemia virus type 1 (HTLV-1), Rous sarcoma virus (RSV) and murine leukemia virus (MLV), flaviviridae: hepatitis C virus (HCV), filoviridae: ebola virus (EBOV) and marburg virus (MARV), arenaviridae: lassa virus (LASV) and machupo virus (MACV), herpesviridae: kaposis sarcoma-associated herpesvirus (KSHV), rhabdoviridae: vesicular stomatitis virus (VSV), orthomyxoviridae: influenza A virus, paramyxoviridae: nipah virus, and coronaviridae: SARS-CoV (PubMed:18200009, PubMed:18342597, PubMed:19179289, PubMed:19879838, PubMed:20399176, PubMed:20419159, PubMed:20686043, PubMed:20943977, PubMed:21529378, PubMed:21621240, PubMed:22520941, PubMed:26378163, PubMed:31199522). Can inhibit cell surface proteolytic activity of MMP14 causing decreased activation of MMP15 which results in inhibition of cell growth and migration (PubMed:22065321). Can stimulate signaling by LILRA4/ILT7 and consequently provide negative feedback to the production of IFN by plasmacytoid dendritic cells in response to viral infection (PubMed:19564354, PubMed:26172439). Plays a role in the organization of the subapical actin cytoskeleton in polarized epithelial cells. Isoform 1 and isoform 2 are both effective viral restriction factors but have differing antiviral and signaling activities (PubMed:23028328, PubMed:26172439). Isoform 2 is resistant to HIV-1 Vpu-mediated degradation and restricts HIV-1 viral budding in the presence of Vpu (PubMed:23028328, PubMed:26172439). Isoform 1 acts as an activator of NF-kappa-B and this activity is inhibited by isoform 2 (PubMed:23028328).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

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

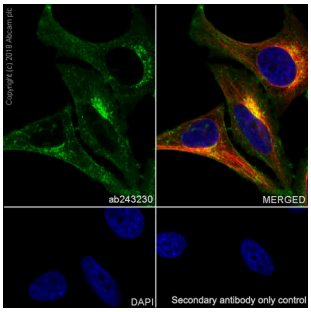
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

7 product images

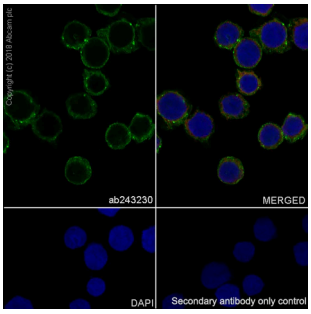


Immunocytochemistry/ Immunofluorescence - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-BST2/Tetherin antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling BST2/Tetherin with ab243230 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody (Green). Confocal image showing cytoplasmic staining in HeLa cells (PMID: 20529266).
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

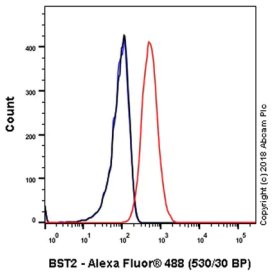


Immunocytochemistry/ Immunofluorescence - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-BST2/Tetherin antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized U-937 (human histiocytic lymphoma cell line) cells labeling BST2/Tetherin with ab243230 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody (Green). Confocal image showing cytoplasmic staining in U-937 cells (PMID: 20529266).
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

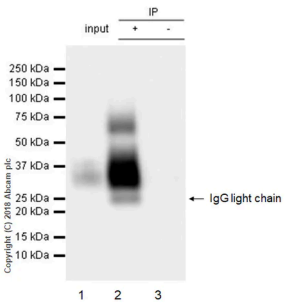
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Flow Cytometry - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin Flow Cytometry staining using rabbit Anti-BST2/Tetherin antibody

Flow cytometric analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling BST2/Tetherin with ab243230 at 1/700 dilution (Red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.



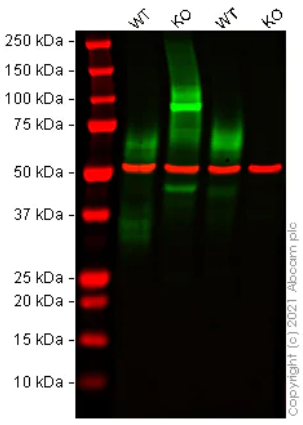
Immunoprecipitation - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin was immunoprecipitated from 0.35 mg HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab243230 at 1/40 dilution. Western blot was perfromed on the immunoprecipitate using ab243230 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used afor detection at 1/5000 dilution.
Lane 1: HeLa whole cell lysate 10 µg (input)
Lane 2: ab243230 IP in HeLa whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab243230 in HeLa whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST
Exposure time: 3 seconds.

All lanes:
Immunoprecipitation - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

Predicted band size: 20 kDa



Western blot - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin Western blot staining using rabbit Anti-BST2/Tetherin antibody

Lanes 1 - 4: Merged signal (red and green). Green - ab243230 observed at 30 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.
ab243230 was shown to react with BST2/Tetherin in wild-type HeLa cells in Western blot with loss of signal observed in BST2 knockout samples. Wild-type HeLa and BST2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab243230 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.

All lanes:
Western blot - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230) at 1/1000 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
Bst2 knockout HeLa cell lysate at 20 µg

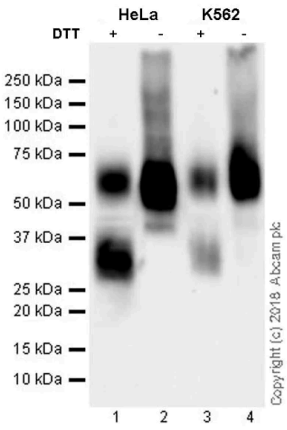
Lane 3:
Wild-type A431 cell lysate at 20 µg

Lane 4:
BST2 knockout A431 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 20 kDa

Observed band size: 30 kDa



Western blot - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin Western blot staining using rabbit Anti-BST2/Tetherin antibody

Blocking/Diluting buffer and concentration: 5% NFDM/TBST
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 19196977; PMID: 19737401).

BST2/Tetherin is a glycosylated protein, its calculated MW is 20 kDa, and the observed MW is 35 kDa, which is consistent with the literature.

Both 35 and 70 kDa bands were detected under the reducing condition, whereas under the non-reducing condition, only the 70 kDa band was detected.

All lanes:
Western blot - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate in the loading buffer containing DTT at 20 µg

Lane 2:
HeLa whole cell lysate in the loading buffer without DTT at 20 µg

Lane 3:
K562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate in the loading buffer containing at 20 µg

Lane 4:
K562 whole cell lysate in the loading buffer without DTT at 20 µg

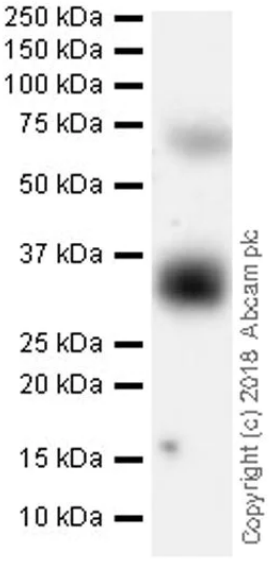
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 20 kDa

Observed band size: 35 kDa, 70 kDa

Exposure time: 48s



Western blot - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230)

BST2/Tetherin Western blot staining of U-937 (human histiocytic lymphoma cell line) whole cell lysate using rabbit Anti-BST2/Tetherin antibody

Blocking/Diluting buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-BST2/Tetherin antibody [EPR20202-150] (ab243230) at 1/1000 dilution

All lanes:
U-937 (human histiocytic lymphoma cell line) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 20 kDa

Exposure time: 125s

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