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Rabbit Anti-BST2 antibody

SL9850R

Product Name:	BST2
Chinese Name:	骨髓基质Stem cells抗原2抗体
Alias:	Bone marrow stromal antigen 2; Bone marrow stromal cell antigen 2; Bone marrow stromal cell antigen; BST 2; BST-2; BST2; BST2_HUMAN; CD 317; CD317; CD317 antigen; HM1.24 antigen; NPC A 7; Tetherin.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=2ug/TestIF=1:50-200（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	18kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BST2/CD317:1-100/180
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Bone marrow stromal cells act as regulators for B-cell growth and development through their surface molecules and cytokines. Bone marrow stromal antigen-2 (BST-2), also designated CD317 antigen, is a single- pass type II membrane protein. BST-2, which is expressed mainly on synovial cell lines and bone marrow stromal cell lines, is primarily expressed in liver, heart, placenta and lung tissues. BST-2 is thought to be involved in

pre-B cell growth. It has been implicated in B cell activation in rheumatoid arthritis.

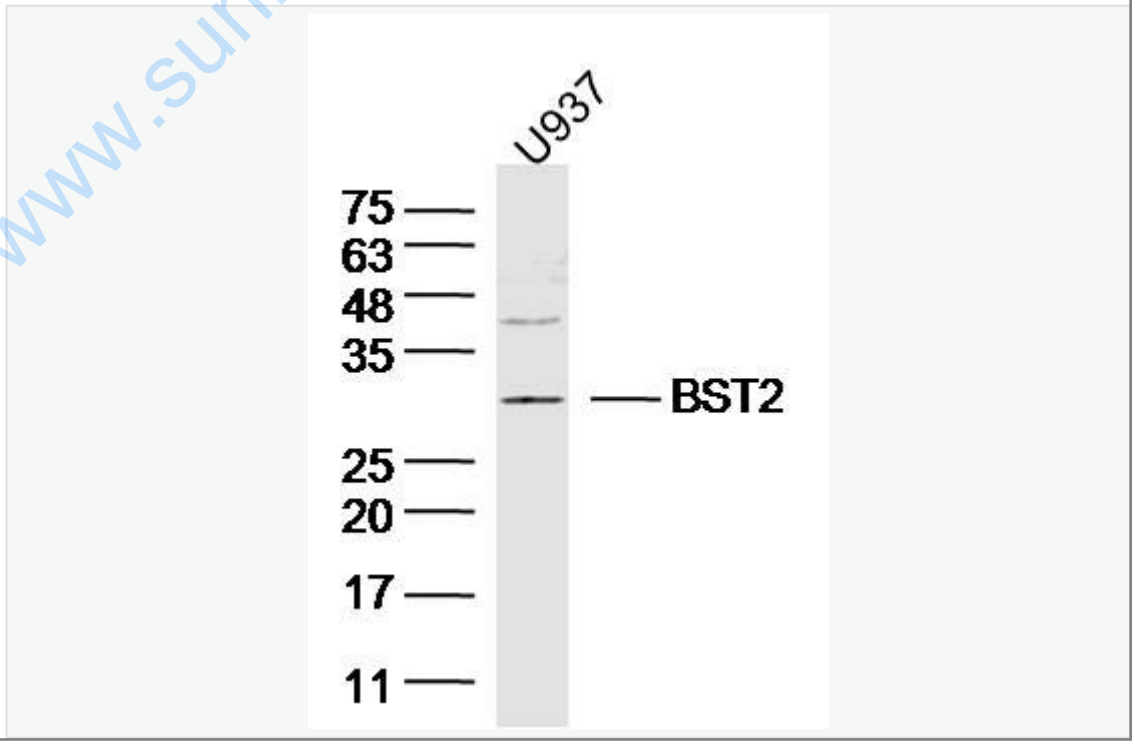
Function:
IFN-induced antiviral host restriction factor which efficiently blocks the release of diverse mammalian enveloped viruses by directly tethering nascent virions to the membranes of infected cells. Acts as a direct physical tether, holding virions to the cell membrane and linking virions to each 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. 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, and paramyxoviridae: nipah virus. Can inhibit cell surface proteolytic activity of MMP14 causing decreased activation of MMP15 which results in inhibition of cell growth and migration. 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. Plays a role in the organization of the subapical actin cytoskeleton in polarized epithelial cells.

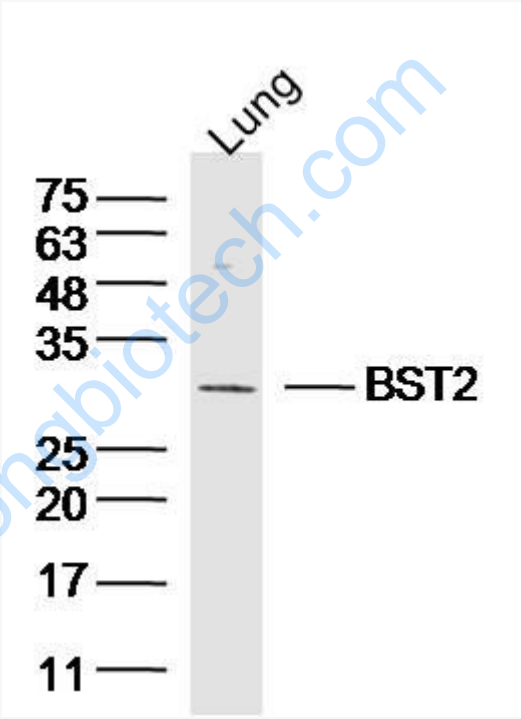
Subunit:
Parallel homodimer; disulfide-linked. May form homotetramers under reducing conditions. Dimerization is essential for its antiviral activity. Interacts (via cytoplasmic domain) with ARHGAP44 (By similarity). Interacts with MMP14 (via C-terminal cytoplasmic tail). Interacts with LILRA4/ILT7. Interacts (via transmembrane domain) with HIV-1 VPU (via transmembrane domain). Interacts with HIV-2 ENV and ebola GP protein.

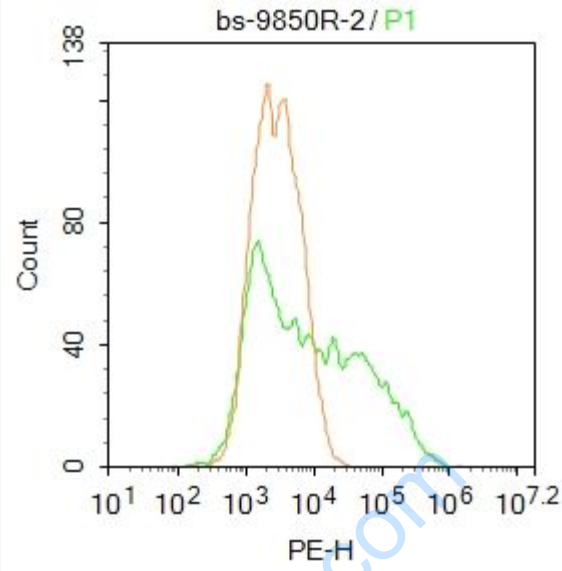
Subcellular Location:
Golgi apparatus; trans-Golgi network. Cell membrane. Cell membrane. Late endosome. Targeted to late endosomes upon KSHV infection and subsequent ubiquitination. Targeted to the trans-Golgi network by viral VPU protein.

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).

Post-translational modifications:
Monoubiquitinated by KSHV E3 ubiquitin-protein ligase K5, leading to its targeting to

	late endosomes and degradation. The GPI anchor is essential for its antiviral activity. **Similarity:** Belongs to the tetherin family. **SWISS:** Q10589 **Gene ID:** 684 **Database links:** Entrez Gene: 684Human Omim: 600534Human SwissProt: Q10589Human Unigene: 118110Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	

	Lane 1: (Human/cell line)U937 lysates probed with BST2 Polyclonal Antibody, Unconjugated (Catalog #bs-9850R) at 1:300 overnight at 4 x C. Followed by a conjugated secondary antibody (Secondary Catalog #926-32211) at 1:10000 for 60 min at 37 x C.
	 Lane 1: (mouse/tissue)Lung lysates probed with BST2 Polyclonal Antibody, Unconjugated (Catalog #bs-9850R) at 1:300 overnight at 4 x C. Followed by a conjugated secondary antibody (Secondary Catalog #926-32211) at 1:10000 for 60 min at 37 x C.



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-BST2 antibody (SL9850R)

Dilution: 2μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: 1μg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.