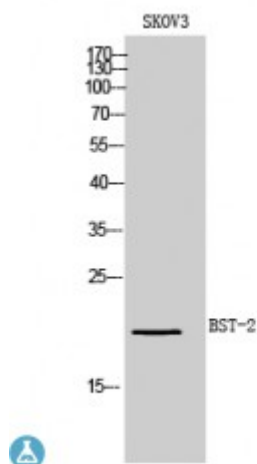


Anti-BST-2 antibody



Description	Rabbit polyclonal to BST-2.
Model	STJ97307
Host	Rabbit
Reactivity	Human
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human BST-2.
Immunogen Region	101-150 aa, Internal
Gene ID	684
Gene Symbol	BST2
Dilution range	WB 1:500-1:2000IHC-P 1:100-1:300ELISA 1:10000
Specificity	BST-2 Polyclonal Antibody detects endogenous levels of BST-2 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).
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Bone marrow stromal antigen 2 BST-2 HM1.24 antigen Tetherin CD antigen CD317

Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:11190MIM:600534
Alternative Names	Bone marrow stromal antigen 2 BST-2 HM1.24 antigen Tetherin CD antigen CD317
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: kaposi 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. Isoform 1 and isoform 2 are both effective viral restriction factors but have differing antiviral and signaling activities. Isoform 2 is resistant to HIV-1 Vpu-mediated degradation and restricts HIV-1 viral budding in the presence of Vpu. Isoform 1 acts as an activator of NF-kappa-B and this activity is inhibited by isoform 2.
Sequence and Domain Family	The extracellular coiled coil domain forms an extended 170 A long semi-flexible rod-like structure important for virion retention at the cell surface and prevention of virus spreading.
Cellular Localization	Golgi apparatus, trans-Golgi network. Cell membrane. Single-pass type II membrane protein. Cell membrane. Lipid-anchor, GPI-anchor. Late endosome. Membrane raft. Cytoplasm. Apical cell membrane. Shuttles between the cell membrane, where it is present predominantly in membrane/lipid rafts, and the trans-Golgi network. HIV-1 VPU and HIV-2 ENV can target it to the trans-Golgi network thus sequestering it away from virus assembly sites on the cell membrane. Targeted to late endosomes upon

KSHV infection and subsequent ubiquitination. Forms a complex with MMP14 and localizes to the cytoplasm.

**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.

St John's Laboratory Ltd

F +44 (0)207 681 2580

T +44 (0)208 223 3081

W <http://www.stjohnslabs.com/>

E info@stjohnslabs.com